



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad -500 043

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Attainment of Program Outcomes (POs) of 2019 - 2021 batch (IARE - R18)

Course Code	Course	Program Outcomes (POs)					
		PO1	PO2	PO3	PO4	PO5	PO6
BCSB01	MATHEMATICAL FOUNDATIONS OF COMPUTER SCIENCE	2.80			2.80	2.80	2.80
BCSB02	ADVANCED DATA STRUCTURES	1.80			1.80	1.80	1.60
BCSB04	WIRELESS SENSOR NETWORKS	2.70			2.70	2.70	2.70
BCSB06	DATA SCIENCE	2.30		2.30	2.30	2.30	2.20
BCSB09	ADVANCED DATA STRUCTURES LABORATORY	3.00		3.00	3.00	3.00	
BCSB10	DATA SCIENCE LABORATORY	3.00		3.00	3.00	3.00	3.00
BCSB11	CYBER SECURITY	2.40		2.10	2.40	2.40	2.40
BCSB12	SOFT COMPUTING	2.40			2.40	2.40	
BCSB13	DATA PREPARATION AND ANALYSIS	2.20			2.20	2.20	
BCSB16	HUMAN AND COMPUTER INTERACTION	2.50		2.50	2.50	2.50	2.50
BCSB19	SOFT COMPUTING LABORATORY	3.00	3.00	3.00	3.00	3.00	3.00
BCSB20	DATA PREPARATION AND ANALYSIS LABORATORY	3.00	3.00	3.00	3.00	3.00	3.00
BCSB21	MINI PROJECT WITH SEMINAR	3.00	3.00	3.00	3.00	3.00	3.00
BCSB31	RESEARCH METHODOLOGY & IPR	2.10	2.00	1.80	1.80	2.10	2.10
BCSB22	MOBILE APPLICATIONS AND SERVICES	1.50		1.50	1.40	1.50	1.50
BCSB30	WASTE TO ENERGY	2.40				2.10	
BCSB40	PHASE - I DISSERTATION	2.30	2.30	2.30	2.30	2.30	2.30
Attainment Value		2.5	2.7	2.5	2.5	2.5	2.5

PO Attainment Overall

S.No	Assessment Components (Direct + Indirect)	Program Outcomes (POs)					
		PO1	PO2	PO3	PO4	PO5	PO6
1	Direct Assessment (CIA + SEE + Course End Survey) (a)	2.5	2.7	2.5	2.5	2.5	2.5
2	Program Exit Survey (b)	2.3	1.7	1.9	2.3	1.9	2.1
3	Alumni Survey (c)	2.1	2.0	2.0	2.1	2.3	2.3
4	Employer Survey (d)	2.2	2.3	2.6	2.5	2.6	2.5
Final attainment = a*0.8 + b*0.1 + c*0.05 + d*0.05		2.4	2.5	2.4	2.5	2.4	2.5

POs Attainment Levels and Actions for improvement:

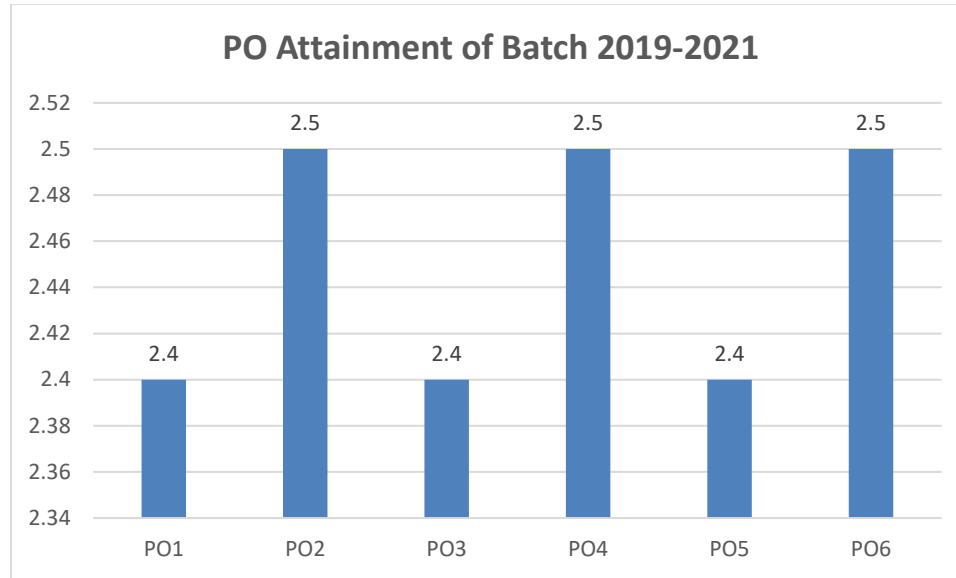
S No.	POs	Target value for 2019-2021 PO Attainment	Overall PO Attainment Value from Direct and Indirect Assessment	Status
1	PO 1	2.1	2.4	Attained
2	PO 2	2.1	2.5	Attained
3	PO 3	2.1	2.4	Attained
4	PO 4	2.1	2.5	Attained
5	PO 5	2.1	2.4	Attained
6	PO 6	2.1	2.5	Attained

All POs are attained.

Sustained efforts are made to ensure continuous attainment by monitoring the resources and processes. The following actions were taken to enhance the target level. The attainment of POs and action taken for improvements in attainments for 2019-2021 is illustrated in table

POs	Target Level	Attainment Level	Observations
PO1: Independently carry out research/investigation and development work to solve practical problems			
PO1	2.1	2.4	Overall attainment of PO1 Target is Achieved. Students were informed to refer to IEEE, Elsevier journal papers /Scopus to enhance their research knowledge, analysis, and interpretation of data. It is observed that more focus required for the subjects Advanced data structures and Mobile applications and services. The following actions are implemented to enhance target value.
<p>Action 1: Target will be retained and will be observed for the next academic year.</p> <p>Action 2: Students are encouraged to participate in National/ international conferences to promote research culture among students.</p>			
PO2: Write and present a substantial technical report/document			
PO2	2.1	2.5	Overall attainment of PO2 reached to the target level. The communication, presentation, and report writing skills need to be more focused on respective theory and laboratory tasks. The following actions were taken to enhance the target level.
<p>Action 1: Soft skills training is imparted to enhance various aspects of communication by group discussions, presentations and new learning outcomes.</p> <p>Action 2: Demonstration of experiment and viva are incorporated in laboratory day to day assessment.</p>			
PO3: Demonstrate a degree of mastery in computer science and engineering emerging areas such as data science, cyber security, and application development.			
PO3	2.1	2.4	Overall attainment of PO3 reached to the target level in most of the core courses. Students are encouraged to solve case studies in research methodology and IPR and Mobile Applications and Services. More focus on improving student participation in emerging areas of Computer Science and Engineering through trainings, workshops and internships.

<p>Action 1: Various IEEE/SCI/Scopus research papers were assigned to students in Research Methodology and IPR course to analyze and review the research papers.</p> <p>Action 2: Faculty are encouraged to identify course specific modern tools and encouraged to use in their regular course work in order to reflect recent trends of CSE.</p>			
<p>PO4: Apply advanced-level knowledge, techniques, skills, and modern tools in the field of computer science and engineering and its allied areas for solving real-time problems.</p>			
PO4	2.1	2.5	Overall attainment of PO4 reached to the target level in most of the core courses. It is observed that more focus required on Advanced data structures, Research Methodology and IPR and Mobile applications and Services courses. The following actions are implemented to enhance target value.
<p>Action 1: Critical thinking problems are incorporated in Advanced data structures and mobile applications and services courses.</p> <p>Action 2: Students are encouraged to participate in coding challenges, Hackathons and various online coding contests.</p>			
<p>PO5: Function effectively in multidisciplinary environments with the knowledge of frontier technologies by working cooperatively, creatively, and responsively as a member or leader in diverse teams.</p>			
PO5	2.1	2.4	Overall attainment of PO5 reached to the target level in all the courses. Few courses like Advanced data structures and Mobile Applications and Services attained nearby target value. The following actions are implemented to enhance target value.
<p>Action 1: Students are motivated to register for webinars/seminars conducted by premier Institutes regarding modern tool usage.</p> <p>Action 2: Continue association with professional bodies like CSI, IEEE Student chapters, and CSI, IEEE Students chapters will arrange expert talks to create more awareness among the students about professional engineering practice.</p>			
<p>PO6: Engage in life-long learning for continuing education in doctoral-level studies and professional development.</p>			
PO6	2.1	2.5	Overall attainment of PO6 reached to the target level. More focus on Advanced data structures and Mobile Applications and Services is required. The following actions are implemented to enhance target value.
<p>Action 1: Students will be motivated to register for GRE/TOEFL/GATE and other competitive examinations.</p> <p>Action 2: Students were motivated to pursue certifications in Advanced data structures course with premier digital platforms.</p>			



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