

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(An Autonomous Institution since 2010)

Accredited by NAAC with 'A' Grade & NBA (Under Tier - I),

An ISO 21001:2018, 14001:2015, 50001:2018 Certified Institution

Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

L.B. REDDY NAGAR, MYLAVARAM, NTR DIST., A.P.-521 230.

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Attainment of POs, PSOs & ATR (Graduated Batch: 2023)

Department: Computer Science & Engineering

S.No.	POs/PSOs	Target	Attainment	Attained / Not-attained
1.	PO1	72	73	Attained
2.	PO2	73	74	Attained
3.	PO3	72	74	Attained
4.	PO4	75	75	Attained
5.	PO5	73	74	Attained
6.	PO6	75	77	Attained
7.	PO7	77	74	Not-Attained
8.	PO8	72	73	Attained
9.	PO9	76	75	Not-Attained
10.	PO10	76	77	Attained
11.	PO11	71	76	Attained
12.	PO12	74	74	Attained
13.	PSO1	72	73	Attained
14.	PSO2	74	73	Not-Attained
15.	PSO3	74	76	Attained

Note: It is the front page of Analysis of Attainment of POs, PSOs and ATR. In addition to front page send me the complete analysis report (As per NBA format).

Date:05-05-2023

Signature of HOD
HEAD

Department of Computer Science & Engineering
Lakireddy Balireddy College of Engineering
MYLAVARAM-521 230, A.P. INDIA



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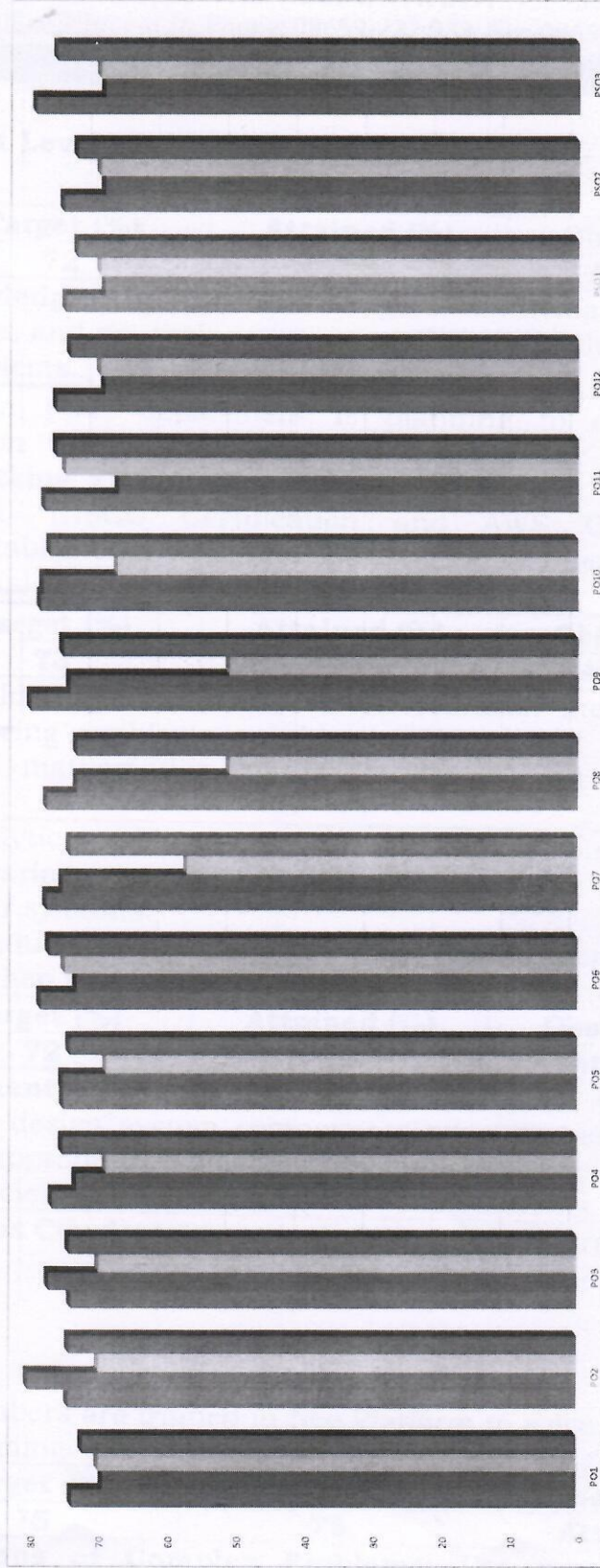
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	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PS01	PS02	PS03
Direct Attainment	73.51	74.1	73.75	76.46	74.9	78.24	77.42	77.39	79.73	78.34	77.73	75.99	74.7	75	79.05
Program Exit Survey	69	80	77	73	75	73	75	73	74	78	67	69	69	69	69
Portfolio Component	69.65	69.65	69.65	68.64	68.64	74.7	56.9	50.77	50.77	67.13	74.7	69.65	69.65	69.65	69.65
% Attainment	72	74	74	75	74	77	74	73	75	77	76	74	73	73	76

2019 Batch PO & PSO Values



S/Sr
HEAD OF THE DEPARTMENT

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

POs & PSOs Attainment Levels and Actions for Improvement- AY 2022-23 (2019 Batch)

PO	Target (%)	Attained (%)	Observation
PO1	72	73	Attained
<p>PO1- Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.</p> <p>Action-1: To Strengthen PO1, department is planning to organize the workshops and hands on sessions on advanced courses like Mean stack technologies, ethical hacking etc., Action-2: Department is planning to organize workshops on "CISCO Certification and AWS Certification". Action-3: Department established a "Machine Learning Club" to enhance their skills in the field of Artificial Intelligence and Machine Learning.</p>			
PO	Target (%)	Attained (%)	Observation
PO2	73	74	Attained
<p>PO2-Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.</p> <p>Action-1: To Improve analytical skills among students, department encourage the students to practice various programs or case studies in the Neo-CO Lab with addition to the regular syllabus.</p> <p>Action-2: Planning to conduct guest lectures by renowned academicians and industry experts to strengthen problem solving skills for the students.</p>			
PO	Target (%)	Attained (%)	Observation
PO3	72	74	Attained
<p>PO3-Design / Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.</p> <p>Action-1: To strengthen this CO, department included various courses like</p> <ul style="list-style-type: none"> • Design Thinking • Go Programming • Predictive Analytics • Cyber Security <p>Action-2: Our Faculty Members are trained in Neo Platform to solve various problems through programming.</p>			
PO	Target (%)	Attained (%)	Observation
PO4	75	75	Attained
<p>PO4-Conduct Investigations of Complex Problems: Use research-based</p>			

knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Action-1: Department offered various courses like Machine Learning, Deep Learning and Cyber Security to conduct complete investigation over the data to derive suitable conclusions.

Action-2: To strengthen this PO, the department organized a 24-hour Hackathon program to our students to enhance their skills to solve complex problems by deriving valid conclusions.

PO	Target (%)	Attained (%)	Observation
PO5	73	74	Attained

PO5-Moderen Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

Action-1: To strengthen this PO, Deferment introduced various advanced courses like Node.js , Express.js, React.js in the curriculum.

Action-2: The department will incorporate tools like NeoCO LAB and Virtual lab by IIIT-B environment to our students to develop new applications.

PO	Target (%)	Attained (%)	Observation
PO6	75	77	Attained

PO6-The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Action-1: To address various issues faced by society, introduce a "Community Service Project" in the curriculum. Students identify the issues and propose a suitable solution as per the requirement.

Action-2: Department planning to organize various workshops related with Human values and Professional Communication.

PO	Target (%)	Attained (%)	Observation
PO7	77	74	Not Attained

PO7- Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Action-1: Directed the concerned faculty to put more focus on Environmental science by giving more assignments which may lead students to find some solutions.

Action-2: To strengthen this CO, introduced some open elective courses like Renewable energy sources and Disaster Management in the curriculum..

PO	Target (%)	Attained (%)	Observation
PO8	72	73	Attained

PO8-Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Action-1: Projects / Mini projects will be scrutinized; plagiarism check will be done to determine to ensure the originality of the project to ensure professional ethics.

Action-2: Department is conducting expert lecture on professional ethics and values. Further, to strengthen this PO, included a new course "Universal

Human Values-II" in the curriculum.			
PO	Target (%)	Attained (%)	Observation
PO9	76	75	Not Attained
PO9-Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.			
Action-1: Students are encouraged to participate as group in various events like hack thons and project competitions.			
Action-2: Projects pertaining to latest problems were analyzed with frequent interactions with industry experts and distribute the work in the team to analyze both individual and team performance.			
PO	Target (%)	Attained (%)	Observation
PO10	78	77	Attained
PO10-Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.			
Action-1: To Improve communication skills among student's department conducting various events under the Association of Computer Geeks (ACG).			
Action-2: To improve speaking and writing skills, introduced various courses like			
<ul style="list-style-type: none"> • Soft Skills Course • Presentation Skills Lab 			
PO	Target (%)	Attained (%)	Observation
PO11	71	76	Attained
PO11-Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.			
Action-1: To Improve project management skills among students, courses like Management Science for Engineers and Managerial Economics, Financial Accountancy and Industrial Management are planned to include in the curriculum based on BoS approval.			
Action-2: To improve management and leadership skills among students; department offers free hand to students for organizing any type of student activities.			
PO	Target (%)	Attained (%)	Observation
PO12	74	74	Attained
PO12-Life Long Learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.			
Action-1: Students are made to recognize the importance of lifelong learning through motivational guest lectures.			
Action-2: Department continuously encourages the students about participating in various events organized in the other universities / colleges.			
PSO	Target (%)	Attained (%)	Observation
PSO1	72	73	Attained
PSO1- The ability to apply Software Engineering practices and strategies in			

software project development using open-source programming environment for the success of organization.

Action-1: To strengthen the outcome, we are concentrated on application-oriented teaching to increase the coding skills

- MERN Stack technologies
- AJAX Programming
- Software Defined Networks
- Devops
- Robotic Process Automation

Action-2: To improve algorithmic thinking capabilities of students to solve various problems introduced various professional courses like

- Data Analytic and Visualization Lab
- Deep learning using Tensor flow
- Blockchain Technology Lab

PSO	Target (%)	Attained (%)	Observation
PSO2	74	73	Not Attained

PSO2-The ability to design and develop computer programs in networking, web applications and IoT as per the society needs.

Action-1: Directed concerned faculty to put more focus on developing network and web applications as per the society needs.

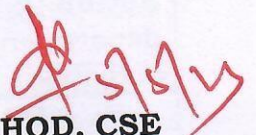
Action-2: To improve coding skills department frequently organizing the coding completions among the students.

PSO	Target (%)	Attained (%)	Observation
PSO3	74	76	Attained

PSO3-To inculcate an ability to analyze, design and implement database applications.

Action-1: To Improve domain knowledge and make them job ready graduates, department is planning to introduce advanced professional electives.

Action-2: Students are encouraged to publish the papers in reputed journals or conferences.


HOD, CSE
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