



# LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

Accredited by NAAC & NBA (Under Tier - I), ISO 9001:2015 Certified Institution

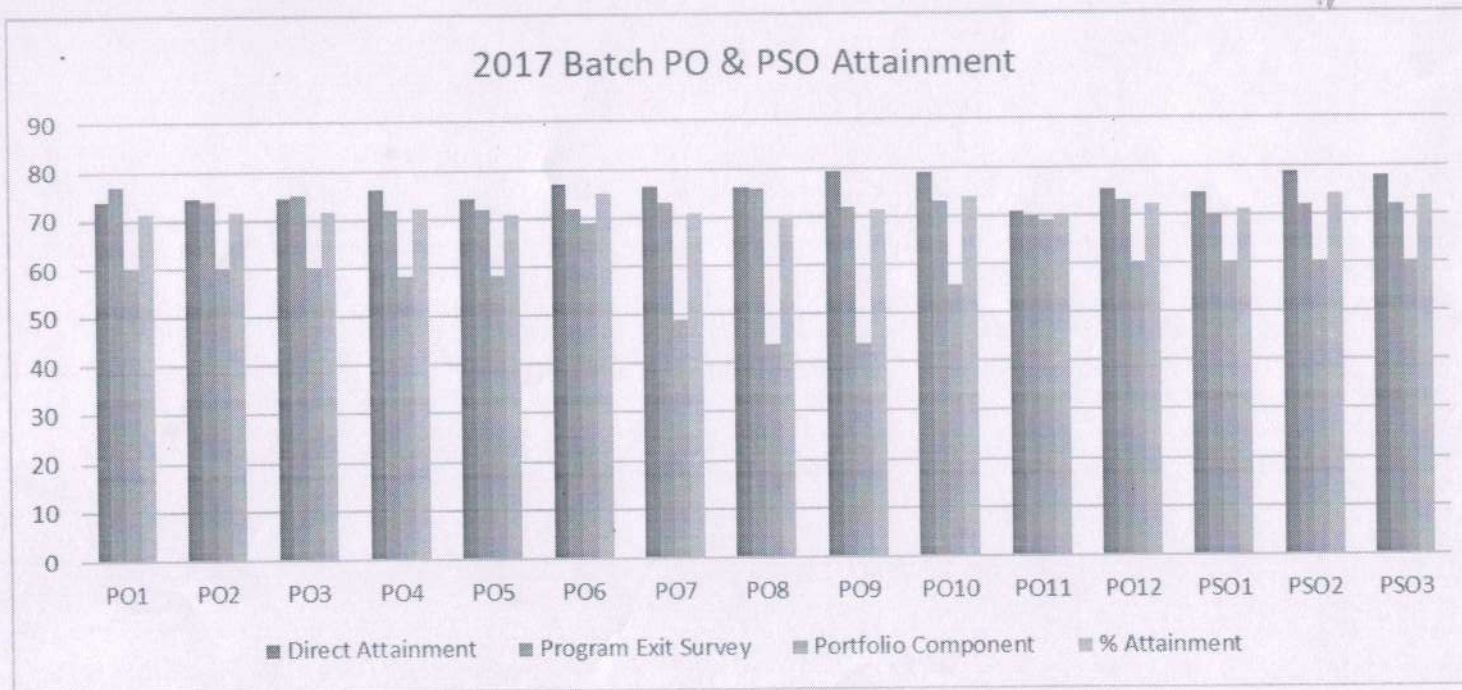
Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada


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

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

### Final Attainment of 2017 Admitted Batch (Direct & Indirect)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct Attainment	73.85	74.55	74.37	76.16	74.23	77.13	76.51	76.11	79.21	79.13	70.71	75.37	74.41	78.66	77.9
Program Exit Survey	77	74	75	72	72	72	73	76	72	73	70	73	70	72	72
Portfolio Component	60.15	60.15	60.15	58.38	58.38	69	48.96	43.75	43.75	55.73	69	60.15	60.15	60.15	60.15
% Attainment	71.43	71.62	71.59	72.19	70.84	75	70.65	69.63	71.40	73.84	70.3	72.09	71.12	74.30	73.76



  
**HEAD**

Dept. of Computer Science and Engineering  
Lakireddy Bali Reddy College of Engg.  
MYLAVARAM - 521 230, Krishna Dt, A.P.



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## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

### POs& PSOs Attainment Levels and Actions for improvement – AY 20-21 (17-Batch)

PO	Target (%)	Attained.(%)	Observation
<b>PO1: Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO1	68	71.43	• Target reached
<p><b>Action1:</b> To strengthen the PO1, department is organizing various workshop on "Microsoft Certification Programs"</p> <p><b>Action2:</b> Department is planning to conduct a various Hands-on session in emerging technologies.</p> <p><b>Action3:</b> To instil coding skills among the student's department introduced code cracker club.</p>			

PO	Target (%)	Attained (%)	Observation
<b>PO2: Problem analysis:</b> Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO2	72	71.62	• Target not reached
<p><b>Action1:</b> To strengthen the PO2, department is Conduct workshops, hands on sessions on modern tools and technologies.</p> <p><b>Action2:</b> Planning to conduct guest lectures by renowned academicians to strengthen problem solving skills for the students.</p> <p><b>Action3:</b> Department is encouraging the students to perform experiments beyond the syllabus in the lab.</p>			

PO	Target (%)	Attained (%)	Observation
<b>PO3: Design/development of solutions:</b> 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.			
PO3	68	71.59	• Target reached
<p><b>Action1:</b> Department will ensure to further strengthen this PO by introducing PAL,PBL and mini projects on real time issues.</p> <p><b>Action2:</b> Our faculty members are trained in E-Box tool in problem solving through programming.</p> <p><b>Action3:</b> The department will incorporate Virtual-Lab environment, to our students to design and develop new simulators for academic purpose that will enhance the students programming skills.</p>			

PO	Target (%)	Attained (%)	Observation
<b>PO4: Conduct investigations of complex problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.			
PO4	67	72.19	• Target reached
<b>Action1:</b> Department is initiate students to enrol into Advanced Skill-Oriented course like Web design using Django / Flask, Natural Language Processing Tool Kit, Cyber Security and publish papers and poster presentation on various latest trends in Computer Science and organized events accordingly, under the banner of “Association of Computer Geeks (ACG)”, a student association of CSE.			
<b>Action2:</b> Department is encouraging the students to identify real life practical problems and propose a suitable solution.			

PO	Target (%)	Attained (%)	Observation
<b>PO5: Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.			
PO5	69	70.84	• Target reached
<b>Action1:</b> For making students to more familiar with modern tools, the department will include Web design using Django / Flask, Natural Language Processing Tool Kit, Gaming using Python, Mobile App Development to develop real-time applications.			
<b>Action2:</b> Department is conducting workshops, hands on sessions on modern tools and technologies.			
<b>Action3:</b> Planning to conduct various certification programs like Cisco, Microsoft, Amazon AWS.			

PO	Target (%)	Attained (%)	Observation
<b>PO6: The engineer and society:</b> 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.			
PO6	69	75	• Target reached
<b>Action1:</b> Courses like Engineer and Society, Universal Human Values, and Professional Communication will include to strengthening this PO. More practice is required in Professional Communication that improves the placements in the future.			
<b>Action2:</b> Two courses are going to introduce viz. Professional Communication Skills; Management Science for Engineers are introduced to improve decision making skills of the students.			

PO	Target (%)	Attained (%)	Observation
<b>PO7: Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.			
PO7	65	70.65	• Target reached
<b>Action1:</b> Directed the concerned faculty to put more focus on Environmental Science by giving assignments which may lead students to find Engineering solutions in this context.			
<b>Action2:</b> Encourage students to develop projects to solve contemporary issues in the society.			

PO	Target (%)	Attained (%)	Observation
<b>PO8: Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
<b>PO8</b>	<b>71</b>	<b>69.63</b>	• Target not reached
<b>Action1:</b> Directed concerned faculty of Engineer and Society and Universal Human Values courses to give some example scenarios which may happen in real world and notice student responses, to inculcate ethical values and social responsibilities.			
<b>Action2:</b> Department is conducting technical talks on professional ethics and Laws and encouraging the students to use of Turnitin software to check plagiarism in project reports.			

PO	Target (%)	Attained (%)	Observation
<b>PO9: Individual and teamwork:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.			
<b>PO9</b>	<b>65</b>	<b>71.40</b>	• Target reached
<b>Action1:</b> To enhance Individual performance among students, department will be including courses like Skill development courses are introduced along with NPTEL.			
<b>Action2:</b> Students will be directed to do theoretical and applied research in latest trends in computer science and engineering as a small group that enhance the teamwork and leadership qualities.			
<b>Action3:</b> Students will be directed to implement various real-time projects that can be deployed in various domains.			

PO	Target (%)	Attained (%)	Observation
<b>PO10: Communication:</b> 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.			
<b>PO10</b>	<b>73</b>	<b>73.84</b>	• Target reached
<b>Action1:</b> For improving Communication skills among students, department will include courses like “Professional Communication Skills-I and Professional Communication Skills-II” with the consideration of Employees from industry.			
<b>Action2:</b> Involvement of students by conducting the activities through Association of Computer Geeks (ACG).			
<b>Action3:</b> Encourage students to participate in the Intercollegiate competitions, publishing technical articles.			

PO	Target (%)	Attained (%)	Observation
<b>PO11: Project management and finance:</b> 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.			
<b>PO11</b>	<b>66</b>	<b>70.3</b>	• Target reached
<b>Action1:</b> For improving Project Management skills among students, the courses like “Management Science for Engineers” will be included based on the feedback from industry and academia.			
<b>Action2:</b> Train the students to manage an engineering activity within time and budget constraint.			

PO	Target (%)	Attained (%)	Observation
<b>PO12: Life-long learning:</b> 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.			
PO12	63	72.09	• Target reached
<p><b>Action1:</b> Department will ensure that various new technologies are incorporated for upcoming regulations for making students to solve complex engineering problems using wide range of programming languages.</p> <p><b>Action2:</b> Department will constantly be encouraging registering NPTEL courses for further enhancement of theoretical and practical experience.</p> <p><b>Action3:</b> Will organize intra-department competitions and National Level Technical Symposiums (Lakshya in our campus).</p> <p><b>Action4:</b> Encouraging students to participate in various events organized in outside colleges/ Institutions.</p>			

PSO	Target (%)	Attained (%)	Observation
<b>PSO1: Programming Paradigms:</b> To inculcate algorithmic thinking, formulation techniques and visualization, leading to problem solving skills using different programming paradigms.			
PSO1	57	71.12	• Target reached
<p><b>Action1:</b> To improve the Programming paradigm, department will be introducing various new programming Languages to the upcoming batches that may enhance students to be industry ready. Few courses are going to include: - R Programming, Front-end webapp Design, Python Programming etc.</p> <p><b>Action2:</b> To inculcate algorithmic thinking, formulation techniques and visualization, leading to problem solving skills among students the following courses are to be incorporated viz.,</p> <ul style="list-style-type: none"> <li>• Computer Aided Engineering Drawing Lab</li> <li>• Front-end webapp Design</li> <li>• Data Analytics and Visualization Lab</li> </ul>			

PSO	Target (%)	Attained (%)	Observation
<b>PSO2: Data Engineering:</b> To inculcate an ability to Analyse, Design and implement data driven applications into the students.			
PSO2	55	74.30	• Target reached
<p><b>Action1:</b> To aware of data engineering domain, department will train the faculty and students together for enhancing their skills on real-time problems. The following courses will be incorporating to meet the industry requirements:</p> <ul style="list-style-type: none"> <li>• Big Data Analytics</li> <li>• Internet of Things</li> <li>• Visual Analytics using Tableau or PowerBI</li> <li>• Web design using Django / Flask</li> <li>• Natural Language Processing Tool Kit</li> </ul> <p><b>Action2:</b> Maintain a technical questionnaire database to train students for placement and competitive exams.</p>			

PSO	Target (%)	Attained (%)	Observation
<b>PSO3: Software Engineering:</b>			Develop an ability to implement various processes/methodologies/practices employed in design, validation, testing and maintenance of software products.
<b>PSO3</b>	<b>57</b>	<b>73.76</b>	• Target reached
<b>Action1:</b> Department will encourage in building a software product and their maintenance using latest technology over a cloud like “DevOps” that will strength the student’s ability.			
<b>Action2:</b> Department will provide a platform Students will be encouraged to undergo a training program to develop a secure software application and its life cycle.			

  
 Head of the Department

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