

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

L.B.Reddy Nagar, Mylavaram – 521 230.Andhra Pradesh, INDIA
Affiliated to JNTUK, Kakinada & Approved by AICTE New Delhi
Accredited by NAAC with B++ Grade, An ISO 9001:2015 Certified Institution

Department of Aerospace Engineering

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RECOMMENDATIONS/SUGGESTIONS REPORT

PO/PSO ATTAINMENTS

Batch: (2015-19)

A.Y:2018-19

POs	Target Level	Attainment Level	Observations
PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
	60	65	Target reached Out of 51 courses, 49 courses are contributing to this PO1. Out of 49, 27 courses are above PO target
	Action 1: The concerned faculty members of the courses which are not reached the target of PO are advised to follow the advanced teaching learning methodologies for better delivery Action 2: Faculty are instructed to concentrate on Problem assisted learning would help reaching the target Action 3: Faculty are expected to teach in application point of view to improve the contribution of core engineering courses to the PO.		
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.			
	60	65	Target reached Out of 51 courses, only 49 courses are contributing to this PO2. Out of 49, 30 courses are above PO target
	Action 1: Faculty are instructed to teach the basic principles such that the student is able to formulate the problem statement Action 2: The faculty are expected to convey the importance of literature while framing a research problem leading to substantiated conclusions		
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.			
	60	64	Target reached Out of 51 courses, 48 courses are contributing to this PO3. Out of 48, 35 courses are above PO target
	Action 1: It is instructed to the concerned faculty members of the courses contributing to the PO, to practice different methods to acquire solutions Action 2: Students are expected to take part or acquire the knowledge on the real time projects with appropriate consideration on society Action 3: The instructions have been given to the PAC & DAC members to identify the new courses or electives which can contribute better for the PO. It is also requested to encourage the students to opt those courses		
PO4: Conduct investigations of complex problems: 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.			
	60	63	Target reached Out of 51 courses, 43 courses are contributing to this PO4. Out of 43, 25 courses are above PO target
Action 1: Faculty are instructed to involve the student community in their research activities, so that the students may improve their knowledge on design, analysis and interpretation of experimentation Action 2: Faculty and student community are advised work with advanced tools or advanced equipment's to investigate complex engineering problems			
PO5: Modern 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.			
	60	64	Target reached Out of 51 courses, only 32 courses are contributing to this PO5. Out of 32, 19 courses are above PO target
Action 1: Faculty are advised to use the modern tools or techniques while delivering lectures so the student will get experience on modern tool usage Action 2: The students are advised to take part in the certification programs which are helpful to explore the modern engineering and IT tools			
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.			
	60	62	Target reached Out of 51 courses, only 9 courses are contributing to this PO6. Out of 9, 8 courses are above PO target
Action 1: Faculty are expected to teach the responsibilities of engineer towards society while he/she is dealing with professional practices			
PO 7: 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.			
	60	60	Target reached Out of 51 courses, only 14 courses are contributing to this PO7. Out of 14, 06 courses are above PO target
Action 1: Faculty are expected to teach the responsibilities of engineer towards environment while he/she is dealing with professional practices Action 2: Guest lectures will be planned to improve the awareness on environmental safety and need for sustainable activities towards better environment			
PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
	60	61	Target reached Out of 51 courses, only 08 courses are contributing to this PO8. Out of 08, 06 courses are above PO target
Action 1: The students are strictly advised to follow the code of ethics in engineering practices Action 2: Guest lectures will be planned to improve the ethical principles of the student community			
PO 9: Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings			

	60	62	Target reached Out of 51 courses, only 21 courses are contributing to this PO9. Out of 21, 14 courses are above PO target
	<p>Action 1: Faculty are instructed to teach the importance of teamwork in engineering practices</p> <p>Action 2: Students are encouraged to carry out the curricular (Projects, Seminars, internships etc.) and co-curricular activities as a team so that they will have the opportunity to work in diverse teams and in different roles</p> <p>Action 2: Students are encouraged to conduct various programs in the college level to get practice in working as teams</p>		
PO 10: 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.			
	60	64	Target reached Out of 51 courses, only 28 courses are contributing to this PO10. Out of 28, 04 courses are above PO target
	<p>Action 1: Involve the students to improve the communication skills through report writing, seminars etc.</p> <p>Action 2: Motivate the students in participating in co-curricular and extracurricular activities conducted in various levels</p>		
PO 11: 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.			
	60	64	Target reached Out of 51 courses, only 26 courses are contributing to this PO11. Out of 26, 19 courses are above PO target
	<p>Action 1: Students are encouraged to undergo industrial trainings and internships to get the real time knowledge about project management</p> <p>Action 2: It is suggested to include the courses related to the project management and finance so that the student will get benefited</p>		
PO 12: 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.			
	60	64	Target reached Out of 51 courses, only 44 courses are contributing to this PO12. Out of 44, 25 courses are above PO target
	<p>Action 1: The faculty are expected to teach the importance of core engineering subjects for the life-long learning of the students.</p> <p>Action 2: Inculcate the students to develop the habit of self-preparation and self-learning through textbooks, journals, print media, electronic media, NPTEL videos, etc.</p>		
PSO 1: To apply the knowledge of Aerodynamics, Propulsion, Aircraft structures and Flight Dynamics in the Aerospace vehicle design.			
	60	64	Target reached Out of 51 courses, only 48 courses are contributing to this PSO1. Out of 48, 26 courses are above PO target value of 60%.

	<p>Action 1: The concerned course and module coordinators should examine the courses which are not reached the target for improvement of PSO attainment.</p> <p>Action 2: Educational videos and other multimedia tools should be used to drive the concepts to the students for more clarity and visualization of the subject.</p> <p>Action 3: Special care has to be taken to improve the analysis and investigation of problems using software tools and advanced equipment</p> <p>Action 4: Students should solve more analysis and design-oriented problems in their assignments and tutorials.</p> <p>Action 5: Higher cognitive level problems especially in design orientation courses are to be discussed in the classrooms.</p>		
<p>PSO 2: To prepare the students to work effectively in Aerospace and Allied Engineering organizations</p>			
	60	63	<p style="text-align: center;">Target reached</p> <p>Out of 51 courses, only 48 courses are contributing to this PSO2. Out of 48, 28 courses are above PO target value of 60%.</p>
	<p>Action 1: Encouraging the students to improve the knowledge on current advancements in defense and space research programs</p> <p>Action 3: Introducing the courses that are helpful in real time working in aerospace industries</p> <p>Action 2: Encourage the students to carry out lab experiments individually and make it mandatory to interpret the results based on permissible limits and document in their lab records.</p>		

Coordinator(s)

Head of the Department

