

### **Program Outcomes:**

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. 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.
- 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.
- 8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 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

**PRINCIPAL**  
Lingayas Institute of Management and Technology  
Viveka Nagar, MADALAVARIGUDEM-521 212,  
Nuzvid Road, Vijayawada Rural

receive clear instructions.

**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.

**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.

**Program Specific Outcomes:**

**PSO 1: *Engineering Fundamentals*:** The ability to develop computer programs in the areas related to Algorithms, Multimedia, Web design, Big Data Analytics, and IoT to deliver a quality product for society needs.


**PSO 2: *Career Development*:** The ability to excel in Computer Science and Engineering program through quality education, communication skills and ethics which enables them to succeed in computing industry profession.

**PSO 3: *Problem Solving Skills*:** The ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver a quality product for business success.

  
PRINCIPAL  
Lingayas Institute of Management and Technology  
Viveka Nagar, MADALAVARIGUDEM-521 212,  
Nuzvid Road, Vijayawada Rural

### Sample of CO attainment of C314

S.No	Question No	Options																				
		1A	1B	1C	2A	2B	2C	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	6C	7A	7B	7C
1	17NA1A0531	0			0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	17NA1A0532	10			10			10														
3	17NA1A0533	10			10			10														
4	17NA1A0534	8			10			10														
5	17NA1A0535	6			10			10														
6	17NA1A0536	10			10			10														
7	17NA1A0537	8			10			10														
8	17NA1A0538	8			8			8														
9	17NA1A0539	8			7			7														
10	17NA1A0540	7			8			6														
11	17NA1A0541	0			0			3														
12	17NA1A0542	8			7			10														
13	17NA1A0543	8			7			7														
14	17NA1A0547	7			7			7														
15	17NA1A0548	7			15			10														
16	17NA1A0549	7			9			8														
17	17NA1A0550	7			7			8														
18	17NA1A0521	1			1			2														
19	17NA1A0522	9			10			6														
20	17NA1A0524	8			7			8														
21	17NA1A0526	0			0			0														
22	17NA1A0528	8			7			8														
23	17NA1A0527	8			9			7														
24	17NA1A0525	5			8			9														
25	17NA1A0529	5			8			7														
26	17NA1A0530	8			10			10														
27	17NA1A0533	10			7			10														
28	17NA1A0532	7			3			0														
29	17NA1A0533	0			0			0														
30	17NA1A0534	7			5			4														
31	17NA1A0535	8			10			10														
32	17NA1A0536	5			5			7														

  
**PRINCIPAL**  
 Lingayas Institute of Management and Technology  
 Viveka Nagar, MADALAVARIGUDEM-517 211,  
 Huzvid Road, Vijayawada Rural

$(1A+1B+1C+1A+2A+2B+2C) \div ((\text{Quiz1}+\text{Assign1})/3)$	$(2A+2B+2C+1B+3A+3B+3C) \div ((\text{Quiz1}+\text{Assign1})/3)$	$(3A+3B+3C+1C+4A+4B+4C) \div ((\text{Quiz1}+\text{Assign1})/3)$	$(1D+5A+5B+5C) \div ((\text{Quiz2}+\text{Assign2})/3)$	$(1E+6A+6B+6C) \div ((\text{Quiz2}+\text{Assign2})/3)$	$(1F+1G+7A+7B+7C) \div ((\text{Quiz2}+\text{Assign2})/3)$
0.00	0.00	0.00	1.00	1.00	1.00
29.33	29.33	15.33	20.33	20.33	5.33
15.67	29.67	29.67	6.33	20.33	19.33
27.00	29.00	15.00	20.00	20.00	5.00
27.33	15.33	29.33	5.67	19.67	18.67
15.33	29.33	29.33	5.00	19.00	18.00
27.00	15.00	29.00	12.67	19.67	11.67
26.33	13.33	12.33	16.67	19.67	11.67
26.33	27.33	11.33	18.67	18.67	3.67
25.67	27.67	10.67	18.67	18.67	3.67
17.00	17.00	3.00	14.67	17.67	3.67
27.00	12.00	29.00	19.67	19.67	4.67
27.67	25.67	11.67	5.67	19.67	18.67
11.33	18.33	11.33	19.67	19.67	11.67
26.00	10.00	15.00	20.00	20.00	5.00
25.33	13.33	12.33	5.33	19.33	4.33
25.33	11.33	10.33	18.33	16.33	3.33
12.00	19.00	16.00	5.67	12.67	11.67
28.00	29.00	11.00	6.67	20.67	5.67
26.67	11.67	26.67	19.33	5.33	18.33
17.33	17.33	3.33	5.67	19.67	4.67
12.67	21.67	26.67	19.33	19.33	4.33
20.00	14.00	26.00	9.67	19.67	18.67
9.33	26.33	13.33	5.67	19.67	18.67
16.67	10.67	11.67	20.00	20.00	9.00
12.33	27.33	28.33	20.33	20.33	5.33
28.67	11.67	28.67	19.67	19.67	4.67
25.33	7.33	2.33	18.67	16.67	3.67
4.33	18.33	4.33	19.67	19.67	4.67
22.67	20.67	12.67	16.67	4.67	3.67
13.33	29.33	29.33	19.33	19.33	4.33
23.67	16.67	22.67	12.33	19.33	4.33
23.33	9.33	18.33	5.67	19.67	18.67
23.00	22.00	8.00	20.00	20.00	5.00
0.00	0.00	0.00	0.00	0.00	0.00
19.33	18.33	28.33	19.33	19.33	4.33

COs	CO1	CO2	CO3	CO4	CO5	CO6	Formula - Mention your range and average value	Formula - Mention your range and average value
Formula - Mention your range and average value	COUNTIF(range, ">=average value")	COUNTIF(range, ">=average value")	COUNTIF(range, ">=average value")	COUNTIF(range, ">=average value")	COUNTIF(range, ">=average value")	COUNTIF(range, ">=average value")	Formula - Mention your range and average value	COUNTIF(range, ">=average value")
No. of students who have crossed the average value	21	18	14	21	28	13	No. of students who have crossed the average value	22
Total no. of students registered (As per Internal Levels)	36	36	36	36	36	36	Total no. of students registered (As per Internal Levels)	36
Percentage(%)	58.33	50.00	38.89	58.33	80.56	36.11	Percentage(%)	61.11
Levels	15	15	0	15	3	0	Levels	2

Levels	
3	>=80
2.5	70-79
2	60-69
1.5	50-59
1	40-49

Levels	
3	>=80
2.5	70-79
2	60-69
1.5	50-59
1	40-49

  
**PRINCIPAL**  
 Lingayas Institute of Management and Technology  
 Viveka Nagar, MADALAVARIGUDEM-521 212,  
 Nuzvid Road, Vijayawada Rural

COs	CO1	CO2	CO3	CO4	CO5	CO6
Internal (40%)	0.6	0.6	0	0.6	1.2	0
External (60%)	1.2	1.2	1.2	1.2	1.2	1.2
Direct Assessment	1.8	1.8	1.2	1.8	2.4	1.2

COs	CO1	CO2	CO3	CO4	CO5	CO6
Direct Assessment (80%)	1.44	1.44	0.96	1.44	1.92	0.96
Indirect Assessment (0.2*End Survey level) - Based on the toughness of the course, choose the questions so that level falls in either 2 or 3	0.6	0.4	0.6	0.6	0.4	0.4
CO Attainment	2.04	1.84	1.56	2.04	2.32	1.36

**Correlation with Curriculum Mapping**

Table 1 - Insert Curriculum Mapping Table here

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO	PSO	PSO
CO1	3	2											2		
CO2	1	2	2										1	1	
CO3	1	3	2	2								2	1	2	
CO4	2	2	3	3										2	
CO5	1	2	2									3			2
CO6	2	2	1									2		1	2

Table 2 - (Curriculum Mapping\*CO Attainment Value)/3

2.04	2.04	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.00	0.00
1.84	0.61	1.23	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.00
1.56	0.52	1.56	1.04	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.52	1.04	0.00
2.04	1.36	1.36	2.04	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.00
2.32	0.77	1.55	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.32	0.00	0.00	1.55
1.36	0.91	0.91	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.45	0.91
Weighted	1.04	1.33	1.05	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.42	0.58	0.41

Table 3: (80% of Table 2)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO	PSO	PSO
Course 1	0.83	1.06	0.84	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.33	0.46

Table 4: 20% of Exit Survey

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO	PSO	PSO
Course 1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

Table 5: Table 3 + Table 4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO	PSO	PSO
Course 1	1.43	1.66	1.44	1.01									1.17	0.33	1.06


  
**PRINCIPAL**  
 Lingayas Institute of Management and Technology  
 Viveka Nagar, MADALAVARIGUDEM-521 212,  
 Nuzvid Road, Vijayawada Rural

### Overall PO attainment

S.NO	Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	C111(ENG-I)	0.84	1.30	0.51	0.60			0.51	0.58			0.60				
2	C112(M-I)	0.76	0.51	0.43												
3	C113(M-II)	1.85	1.23	1.03												
4	C114(AP)	0.47	0.37	0.41	0.27	0.47	0.37						0.29			
5	C115(CP)	0.78	0.72	0.63	0.30									0.80	0.80	0.80
6	C116(ED)	0.77	0.77	0.89		1.15								0.39	0.38	
7	C117(ECL-I)			0.75	0.52					0.75	1.48					
8	C118(APL)	1.28		1.60		0.64				1.28						
9	C11A(CPL)	1.30	1.98	1.54	0.66	1.98							1.98	1.71	1.75	1.75
10	C101(ENG-E)	1.07		0.55	0.54	0.53	1.13	1.03	0.93	0.54	0.53		1.09			
11	C102(M-III)	1.00	0.66	0.59												
12	C103(AC)	0.32	0.73	0.61	0.64	0.84	0.65	0.74								
13	C104(OOPS)	1.41	1.31	1.09	0.63								1.09	0.23	1.00	1.11
14	C105(ES)	0.74	0.58	1.01	0.74	1.01	0.72	0.89	0.55	0.64	0.81	0.41	1.38			
15	C106(EM)	1.10	1.17	1.10	1.05								0.45			
16	C107(ACL)	0.50	1.03		0.86	1.19		0.50		0.55	0.90	0.81				0.75
17	C108(ECL-II)							0.47		1.16	1.49					
18	C109(OPPL)	0.92	1.21	1.25	0.95	1.56							1.56	1.04	1.56	1.56
19	C211(SRP)	0.65	0.90	1.02	0.44									0.46		0.46
20	C212(MFCS)	0.53	0.54	0.86	0.65											
21	C213(DLD)	0.40	0.58	0.75	0.29											
22	C214(PP)	0.91	0.68	0.99	0.88								0.65	0.54	0.66	0.66
23	C215(DS)	0.70	0.65	0.83										0.41	0.49	0.89
24	C216(CG)	1.13	0.96	1.14	0.67											

24	C216(CG)	1.13	0.96	1.14	0.67											
25	C217(DSLab)	0.27	0.54	0.81	0.37	0.81							0.54	0.27	0.54	0.71
26	C218(PPLab)	1.73	1.53	1.56	1.15	0.41						1.18	1.56	1.35	0.41	
27	C201(SE)	0.99	1.14	1.22												
28	C202(JP)	0.68	0.94	0.82	0.44								0.65	0.32	0.62	0.63
29	C203(ADS)	0.71	0.87	1.19	0.50									1.34	0.47	0.94
30	C204(CO)	0.60	0.90													
31	C205(FLAT)	0.68	1.14	1.13	0.54								0.81			
32	C206(PPL)	0.67	0.83	1.25												
33	C207(ADSLab)	0.73	1.45	2.18	1.18	2.18						1.18	0.73	1.18	1.91	
34	C208(JPLab)	1.39	1.17	1.17	0.57	1.75								1.37	0.97	0.97
35	C311(CD)	0.91	1.18	0.84										0.55		
36	C312(UNDX)	1.14	1.33	1.59									0.82	1.33	1.08	1.21
37	C313(OOAD)	1.07	1.08	1.62	1.32									1.13	1.57	1.34
38	C314(DBMS)	0.83	1.10	1.02	1.34								1.15	0.71	0.75	0.91
39	C315(OS)	0.82	1.22	1.03	1.11									1.04	1.26	1.15
40	C316(UML lab)	1.51	1.37	2.05	0.95	1.37						0.68	1.84	1.84	0.68	
41	C317(OS&LP Lab)	1.05	1.28	1.30	0.69	1.92							1.53	0.80	1.07	
42	C318(DBMSL)	0.97	1.17	1.56		1.75						0.53	1.20	1.75	0.78	
43	C301(CN)	0.94	1.18	0.96										0.54		
44	C302(WDM)	0.80	0.96	1.23	0.45									0.95	0.47	
45	C303(DAA)	0.84	1.34		0.55									0.53		
46	C304(STM)	1.16	1.31	0.68	0.54								0.37	1.06	1.03	1.12
47	C305(JOT)	1.03	1.11	1.16									0.53	0.54	0.54	
48	C306(NI AB)	0.84	1.37			1.67						0.39	0.98	0.78		

**PRINCIPAL**  
 Lingayas Institute of Management and Technology  
 Viveka Nagar, MADALAVARIGUDEM-521 212,  
 Nuzvid Road, Vijayawada Rural


45	C303(DAA)	0.84	1.34		0.55								0.53			
46	C304(STM)	1.16	1.31	0.68	0.54								0.37	1.06	1.03	1.12
47	C305(IOT)	1.03	1.11	1.16									0.53	0.54	0.54	
48	C306(NLAB)	0.84	1.32			1.62					0.39	0.98	0.78			
49	C307(STM LAB)	0.57	1.51	0.76	0.94	1.71						0.76	1.33	0.57		
50	C308(DWDML)	0.62	1.24	1.86	1.24	1.86					0.62	1.86	1.24	0.62		
51	C411(CNS)	0.89	1.21	1.32	0.55								0.55	0.55	0.55	
52	C412(SADP)	0.45	0.69	0.57	0.27								0.22	0.34	0.23	
53	C413(WT)	0.94	1.30	1.54								0.90	1.48	1.09	1.59	
54	C414(MEFA)	0.71	1.06													
55	C415(MC)	0.96	0.92	1.02								0.51		0.51		
56	C416(SPM)	0.91	1.04	1.16										0.00		
57	C417(SADPLAB)	1.01	1.48	2.22	1.01	2.22				0.74	1.01	1.95	1.75			
58	C418(WTLAB)	1.54	1.48	1.95		2.22			1.54	1.54	1.21	1.48				
59	C401(DS)	0.94	1.10	1.01												
60	C402(MS)	0.94	1.10	1.01												
61	C403(NL)	0.91	0.99	1.27									0.55	0.55		
62	C404(ANN)	1.04	1.50	1.98									0.99	0.99		
63	C405(Seminar)		0.80						0.92	0.87		0.76	0.92	0.46		
64	C406(PROJECT)	6.50	1.12	0.87	0.25	0.25	0.25	0.13	0.25	0.50	0.50	0.13	0.50	0.50	0.88	0.88
	Sum	54.69	65.87	64.51	26.64	29.45	5.12	4.28	2.51	6.34	8.15	8.80	28.71	36.19	29.15	20.25
	Avg	0.89	1.05	1.13	0.70	1.34	0.62	0.61	0.58	0.79	1.02	0.73	0.99	0.93	0.83	0.96
	Curriculum mapping	1.32	1.45	1.51	1.16	1.67	1.10	1.09	1.06	1.23	1.41	1.19	1.39	1.34	1.27	1.37
	Count of Courses	61	60	57	38	22	5	7	4	8	8	12	29	39	35	21

#### Over all CO attainment:

S.NO	Course	CO1	CO2	CO3	CO4	CO5	CO6
1	C111(ENG-I)	2.24	2.44	2.44	2.28	1.92	2.24
2	C112(M-I)	1.04	1.24	0.6	1.24	0.88	0.72
3	C113(M-II)	2.08	2.6	2.12	2.6	2.4	2.08
4	C114(AP)	0.88	1.24	0.92	1.08	0.88	0.72
5	C115(CP)	0.88	1.08	1.24	1.56	1.2	1.04
6	C116(ED)	1.36	1.4	1.56			
7	C117(ECL-I)	2	1.88	2.52			
8	C118(APL)	1.84	2.36	3			
9	C11A(CPL)	2.24	2.44	2.76			
10	C101(ENG-II)	2	2.04	2.2	2.2	1.84	2
11	C102(M-III)	1.52	1.56	1.56	1.08	0.88	0.88
12	C103(AC)	0.88	1.08	1.56	1.08	1.2	1.36
13	C104(OOPS)	1.76	1.96	1.96	1.96	1.76	1.6
14	C105(ES)	1.52	1.56	1.56	1.72	1.52	1.52
15	C106(EM)	1.52	1.88	1.88	1.72	1.68	1.36
16	C107(ACL)	1.52	1.08	1.88			
17	C108(ECL-II)	1.84	1.72	2.04			
18	C109(OPPL)	1.6	1.96	2.28			
19	C211(SRP)	1.76	1.96	1.8	1.8	1.6	1.44
20	C212(MFCS)	0.88	1.08	1.08	1.08	1.04	0.88
21	C213(DLD)	0.88	1.08	0.92	1.24	1.04	0.88
22	C214(PP)	1.36	1.72	1.56	1.72	1.36	1.52
23	C215(DS)	0.88	1.08	1.08	1.56	1.36	1.52

PRINCIPAL  
 Lingayas Institute of Management and Technology  
 Viveka Nagar, MADALAVARIGUDEM-521 212,  
 Nuzvid Road, Vijayawada Rural

23	C215(DS)	0.88	1.08	1.08	1.56	1.36	1.52		
24	C216(CG)	1.6	1.8	1.8	1.8	1.76	1.92		
25	C217(DSLab)	0.88	1.08	1.08					
26	C218(PPLab)	1.92	2.28	2.28					
27	C201(SE)	1.6	1.6	1.76	1.76	1.76	1.76		
28	C202(JP)	1.56	1.2	1.4	1.88	1.52	1.52		
29	C203(ADS)	1.68	1.88	1.72	1.88	1.68	1.84		
30	C204(CO)	1.56	1.4	1.08	0.88	1.52	1.52		
31	C205(FLAT)	1.6	1.32	1.64	2.12	1.92	1.76		
32	C206(PPL)	1.6	1.8	1.32	1.96	1.76	1.6		
33	C207(ADSLab)	2.32	3	2.84					
34	C208(JPLab)	2.16	2.36	2.04					
35	C311(CD)	2.08	2.28	2.12	2.28	1.6	2.08		
36	C312(UNIX)	2.64	2.68	2.52	2.68	2.16	2.32		
37	C313(OOAD)	2.08	2.28	2.44	2.12	2.24	1.92		
38	C314(DBMS)	2.04	1.84	2.04	2	2.04	1.36		
39	C315(OS)	1.56	1.36	2.04	2.16	2.16	2		
40	C316(UML lab)	2.32	2.36	3					
41	C317(OS&LP Lab)	2.32	2.04	2.84					
42	C318(DBMSL)	2.16	1.88	2.52					
43	C301(CN)	2.6	2.08	1.92	1.8	1.92	1.8		
44	C302DWD)	2.04	1.84	1.88	1.56	1.36	2		
45	C303(DAA)	1.6	2.44	2.08	2.44	1.8	1.6		
46	C304(STM)	2.6	2.08	2.08	2.08	1.8	2.12		
47	C305(IOT)	2.44	2.08	2.12	2.28	2.08	1.6		

  
**PRINCIPAL**  
 Lingayas Institute of Management and Technology  
 Viveka Nagar, MADALAVARIGUDE M-621 312,  
 Nuzvid Road, Vijavawada (Koppal)



44	C302(DWDM)	2.04	1.84	1.88	1.56	1.36	2
45	C303(DAA)	1.6	2.44	2.08	2.44	1.8	1.6
46	C304(STM)	2.6	2.08	2.08	2.08	1.8	2.12
47	C305(IOT)	2.44	2.08	2.12	2.28	2.08	1.6
48	C306(NLAB)	1.68	2.2	2.2			
49	C307(STM LAB)	2	2.2	2.2			
50	C308(DWDML)	2.24	2.6	2.12			
51	C411(CNS)	1.84	1.88	2.04	2.2	2.16	2
52	C412(SADP)	1.08	1.08	1.4	1.36	1.52	0.88
53	C413(WT)	2.32	2.36	2.04	2.84	1.84	2.16
54	C414(MEFA)	1.6	1.32	1.8	1.96	1.12	1.6
55	C415(MC)	1.68	2.04	1.88	1.56	1.84	2
56	C416(SPM)	2.16	2.2	2.04	2.04	1.36	2
57	C417(SADPLAB)	2.32	3	3			
58	C418(WTLAB)	2.32	3	3			
59	C401(DS)	2.48	2.48	2.64	2.84	2.84	2.84
60	C402(MS)	2.12	1.92	1.76	1.96	1.96	1.76
61	C403(ML)	2.04	2	2.04	2	2.2	2.2
62	C404(ANN)	2.68	2.68	2.48	2.68	2.48	2.48
63	C405(Seminar)	2	1.8	1.4			
64	C406(PROJECT)	1.84	1.88	1.88	1.88		

  
**PRINCIPAL**  
 Lingayas Institute of Management and Technology  
 Viveka Nagar, MADALAVARIGUDEM-521 212,  
 Nazvid Road, Vijayawada Rural


**LINGAYAS INSTITUTE OF MANAGEMENT AND TECHNOLOGY, VIJAYAWADA**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**CONTINUOUS IMPROVEMENT**

**Actions taken based on the results of evaluation of each of the POs & PSOs**


**POs Attainment Levels and Actions for Improvement- (2016-20)**

POs	Target Level	Attainment Level	Observations
<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	1.45	1.31	Target level not achieved
<p>Action1: Identifying the irregular students and counsel them to attend the classes regularly.</p> <p>Action2: Motivating the students to be aware on effective use of Library resources.</p> <p>Action 3: Identifying the weak and bright students and Conducting remedial classes for weak students.</p> <p>Action4: Planning to include the previous year's university questions in the tutorial sessions.</p>			
<b>PO2: Problem Analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences			
PO2	1.45	1.45	Target level achieved
<p>Action1: planning assignments for improving problem solving skills and to know the importance of computation.</p> <p>Action2: Motivating to solve more problematic questions during tutorial hours</p> <p>Action 3: Encouraging students to refer International journals for real world exposure in the tutorial hours.</p> <p>Action 4: Planning to conduct Small Quizzes and group discussions in association hours</p> <p>Action 5: Planning to conduct Seminars/ Mini Project/Project based learning/reputed conferences and transactions s that they will have exposure to the art of state</p>			

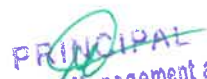
  
**PRINCIPAL**  
 Lingayas Institute of Management and Technology  
 Viveka Nagar, MADALAVARIGUDEMA, N. Andhra  
 Nuzvid Road, Vijayawada Rural



<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	1.45	1.51	Target level achieved
Action1: Planning to visit industries and discussing the design issues.			
Action2: Planning to Conduct workshop from industry experts for the designing of products.			
Action 3: Planning Conduct more Remedial sessions to improve their performance level			
Action 4: Planning to give Extra material as handouts for understanding the concepts.			
Action 5: planning to give the use cases to improve their thinking level			
<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	1.45	1.15	Target level not achieved
Action 1:Planning to conduct technical workshops on a systematic basis in order to increase knowledge and skills to solve design problems Planning to identify courses who contributing very less to PO			
<b>PO5: Modern tool usage:</b> 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			
PO5	1.45	1.69	Target level achieved
Action 1: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. Motivation the students for self-learning using collaborative tools(open source tools),and latest tools			
<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	1.20	1.10	Target level not achieved
Action1: Planning to conduct technical Programs to encourage the students to manage the project in multidisciplinary environments.			


  
**PRINCIPAL**  
 Jyoti Institute of Management and Technology  
 MADALAVARIGUDEM - 512121  
 1 Road, V. N. Y. Road, K. R. S. 1

Action 2 Conduct more Technical events for under students associations			
Action3: Planning to conduct technical workshops on a systematic basis in order to increase knowledge and skills to solve design problems.			
Action4: Planning for industrial visits to broader their practical knowledge and to understand the safety concerns and social aspects.			
<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	1.20	1.09	Target level achieved
Action1:specialorientations will be provided to students towards green technologies			
Action2: Case studies related to past and present environmental problems (National and International) will be discussed by students and teachers through the presentation in the class.			
Action 3: Conduct more programs for society development activities with student involvement.			
PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO8	1.20	1.06	Target level not achieved
Action1: Various events and functions are conducted in the college where the student will understand togetherness and caring attitude for ethical development.			
<b>PO9: Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings			
PO9	1.20	1.22	Target level achieved
Action1: Experiments will be conducted individually as well as in groups to develop the team work and the results will be assessed by the Faculty.			
Action2: Students are assigned topics to give presentations individually as well as in groups.			
Action3: Club activities are conducted for students as an extracurricular activity to develop team work culture.			
<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			

  
**PRINCIPAL**  
 Lingayas Institute of Management and Technology  
 Viveka Nagar, MADALAVARIGUDEM-521 212.  
 Nuzvid Road, Vijayawada Rural

PO10	1.20	1.32	Target level achieved
<p>Action1: Students are encouraged to make all the discussions in English (during inside and outside the class rooms)</p> <p>Action2: Seminars related to the latest Engineering topics are conducted pertaining to respective Subjects</p> <p>Action3: Communication skill training sessions are conducting as per plan during the respective periods</p>			
<p><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.</p>			
PO11	1.20	1.00	Target level not achieved
<p>Action 1: Planning to Encourage Mini Projects for better understanding of Subjects.</p> <p>Action 2: Planning to Conduct/Encourage Student Paper Publications in their Projects.</p> <p>Action 3: Planning to Conduct under graduate project contests and publish research papers</p> <p>Action 4: Planning to Conduct expert talks on Entrepreneurship skills.</p>			
<p><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.</p>			
PO12	1.20	1.27	Target level not achieved
<p>Action 1: Workshop are conducted to improve the target level</p> <p>Action 2: Encourage the students to attend seminars and technical presentations in university / college/ national/international Conference</p> <p>Action 3: Encourage the students to participate in youth festival at university level</p>			

<p>PSO 1 : Engineering Fundamentals: Develop computer programs in the areas related to Algorithms, Multimedia, Web design, Big Data Analytics, and IoT to deliver a quality product for society needs</p>			
PSO-1	1.38	1.38	Target level is achieved

  
**PRINCIPAL**  
 Lingayas Institute of Management and Technology  
 Vijaya Nagar, MADALAVARIGUDEM-517 212  
 Nuzvid Road, Vijayawada Rural

Action 1: Workshop are conducted to improve the target level

Action 2: Encourage the students to attend seminars and technical presentations in university / college/ national/international Conference

Action 3: To conduct more workshops on latest Technologies

PSO 2: Career Development: Use the concepts and excel in Computer Science and Engineering program through quality education, communication skills and ethics which enables them to succeed in computing industry profession.

PSO-2

1.38

1.43

Target level is achieved

Action 1: Students had difficulty in understanding concepts like computer programming and solving problems.

Action 2: To empower them to overcome the challenge difficulty, provided study material and conducted extra classes for them.

Action 3: faculty were advised to conduct on the spot quizzes and tutorials to ensure that it meets learning outcomes. Open hours are introduced for more interactions with faculty.

Action:4. Every faculty advise the students to improve the English communication

PSO 3: Career Development: Use the concepts and excel in Computer Science and Engineering program through quality education, communication skills and ethics which enables them to succeed in computing industry profession.

PSO-3

1.38

1.46

Target level is achieved

Action1: Problem formulation and solution to real- life situations in the subjects like C, C++ programming to the students.

Action2: Extra laboratory assignments are given to enhance the subject knowledge.

Action 3: Faculty are advised to give application-oriented assignments to students

Action 4: Faculty are advised to students to do the internet ship from second year onwards, then students will get benefited at the end of the engineering course