



POORNIMA

COLLEGE OF ENGINEERING

Approved by AICTE
Affiliated to Rajasthan Technical University, Kota
Recognized by UGC under Section 2(f) of the UGC Act, 1956

ATTAINMENT PROCESS

ISI-6, RIICO Institutional Area, Sitapura, Jaipur-302022 (Rajasthan)
• Phone: +91-9829255102, +91-9414728922 • E-mail: principal.pce@poornima.org
• Website: www.pce.poornima.org

Poornima College of Engineering envisions creation of knowledge-based society with scientific temper and team-spirit. The institute aims at holistic development of the student to meet global competitive challenges. The institute practices Outcome Based Education for all undergraduate offered programs and this practice starts with defining Course Outcomes (COs) for each course using Bloom's Taxonomy and mapping with Program Outcomes (POs), Program Specific Outcomes (PSOs), finding curriculum gaps and planning beyond curriculum contents & activities.

The Institute and Department Vision & Mission, Program Educational Objectives (PEOs), POs, PSOs and COs are displayed on the institution website (www.pce.poornima.org) and disseminated in the departments via flex, Posters in the department laboratories, lecture theatres, tutorial rooms, notice boards, faculty rooms, HOD cabin, department corridors, library, department newsletters, Institute annual magazine, Institute prospectus, faculty course file and laboratory manuals. These are discussed and finalized through various committees representing various stakeholders.

Zero lecture of the each course includes details of COs, POs, PSOs & PEOs along with Department Vision & Mission statements and the Sessions on "Outcome Based Education" are conducted in orientation programs for the newly joined faculties & admitted students.

Attainment of POs and COs are evaluated:

Process of attainment evaluation of COs and POs are continuous, real time and comprehensive at PCE. PCE has laid down unique OBE process in the Institute wherein student wise attainment is evaluated and analyzed continuously. After defining Course Outcomes (COs) of each course, COs are mapped with POs and PSOs on the scale of 1 to 3, where '1' is used for weak mapping, "3" is used for strong mapping and "-" is used for no mapping. COs are defined in generic form considering whole contents of a course as one unit and targeting attainments of cognitive domain POs. Some of the COs are mapped to POs of affective domain and psychomotor domain assessed through activity based learning. Faculty sets criteria for target in each course and evaluates attainments in continuous mode. At each stage of assessment gaps are identified and action to be taken is decided, in case target achieved, criteria for target is set to higher level.

As per the RTU guidelines the evaluation process of students for practical and theory exams are segregated in to two components namely internal assessment and external assessment components. Process of attainment of COs and POs is shown in Figures (a) & Figure (b).


Dr. Mahesh Bunde
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Director
Poornima College of Engineering
131-0, FULCO Institutional Area
Sitapura, JAIPUR

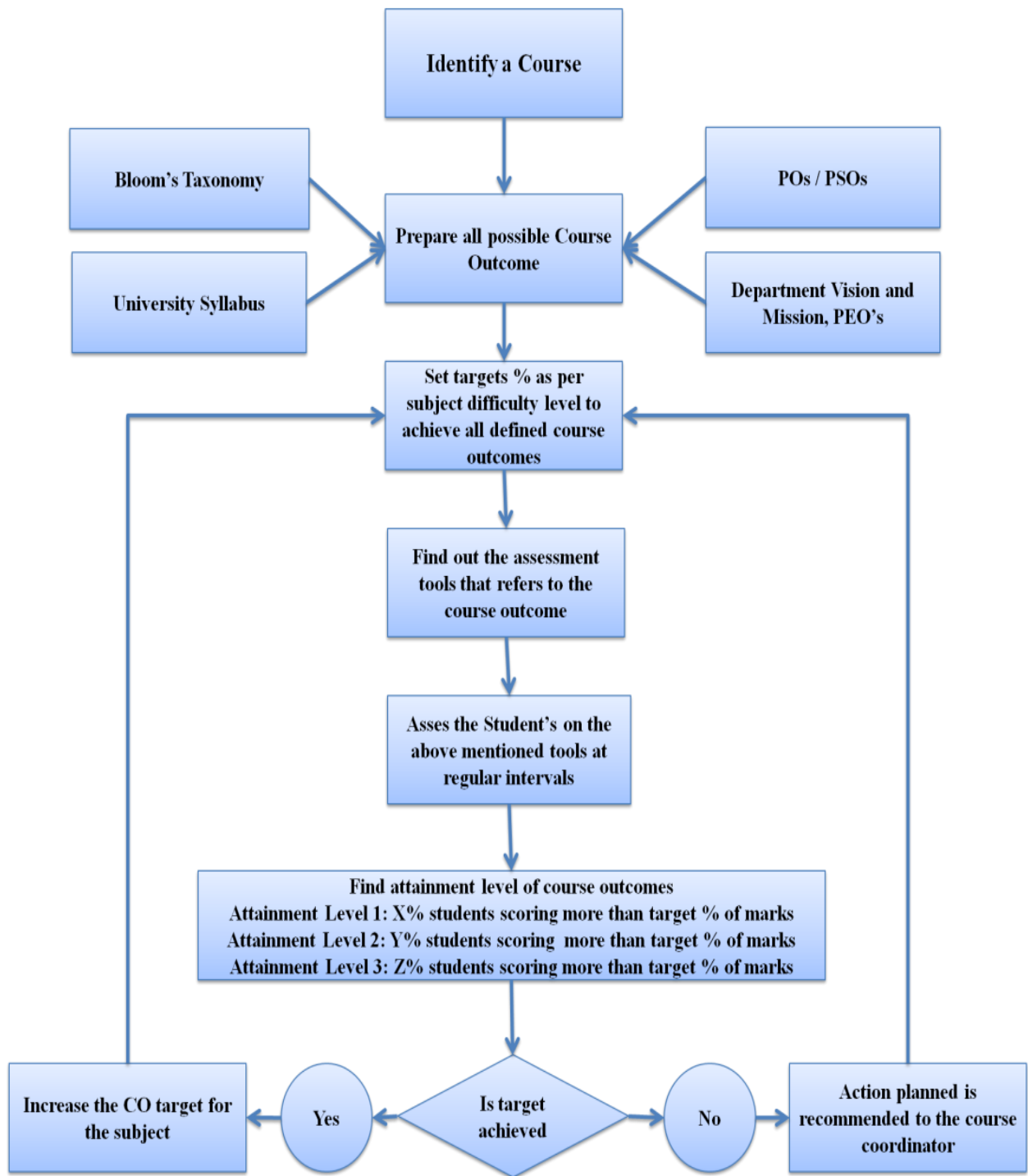


Figure:- (a): CO attainment Process

POs and PSOs Attainment

The attainment of Program Outcome (POs) and Program Specific Outcome (PSOs) is calculated through direct and indirect assessment tools.

- Direct attainment of POs/ PSOs is obtained from attainment of COs and Los. COs are defined for theory courses while Learning Outcome (LO) are defined for laboratory, seminars, projects and activity based learning. COs & LOs altogether maps with all PO (i.e. PO1 to PO12), likewise attainments of all COs & LOs leads to attainments of POs and PSOs. Targets for POs/PSOs after mapping all COs and LOs always comes as less than 3. This leads to planning of beyond curriculum activities such as trainings, internships, industry visits, workshops etc. There activities are planned and the attainments are measured through rubrics. As there is student wise attainment process, the students are categorized as best performing, good and weaker students. More focus is given weaker students so that they move from weaker to good and best performance groups. Separate activities and inputs are planned for such groups. The indirect attainment POs/PSOs is calculated through surveys and feedbacks from the stakeholders. The survey form is used to take feedback from stakeholder at the end of the semester/ activity. The survey form carries questions from relative PO/PSO and participants asked to fill their responses at a scale of 1 to 5. On the basis of responses received from stakeholders and counting scale values the attainment of PO/PSO is calculated. Overall indirect attainment is calculated by taking average of all the activities/feedbacks of individual PO/PSO.
- Overall PO or PSO attainment is calculated by considering 80% weightage from direct and 20% weightage from indirect attainment.
- Further attainments such as performance in competitions, hackethons, placements etc. are linked with POs and PSOs.
- Evaluation process of PO/PSO is unique and precise.

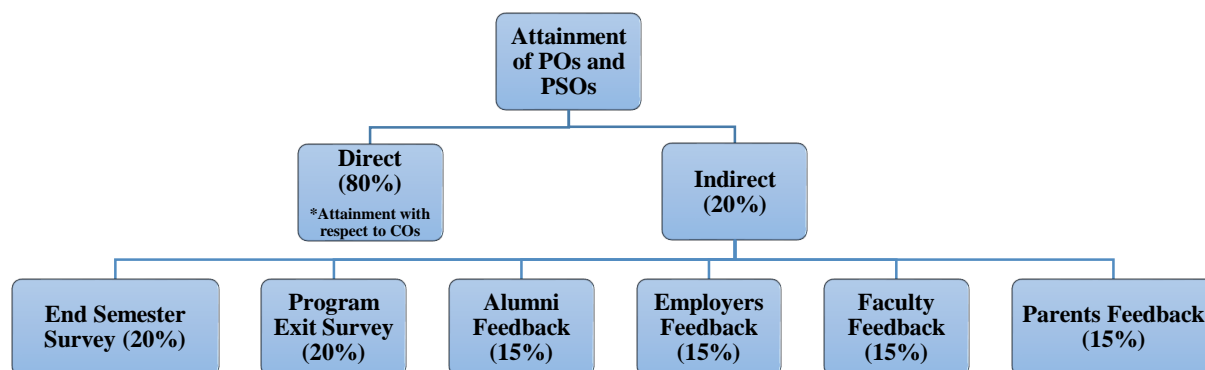


Figure:- (b): POs/PSOs Attainment



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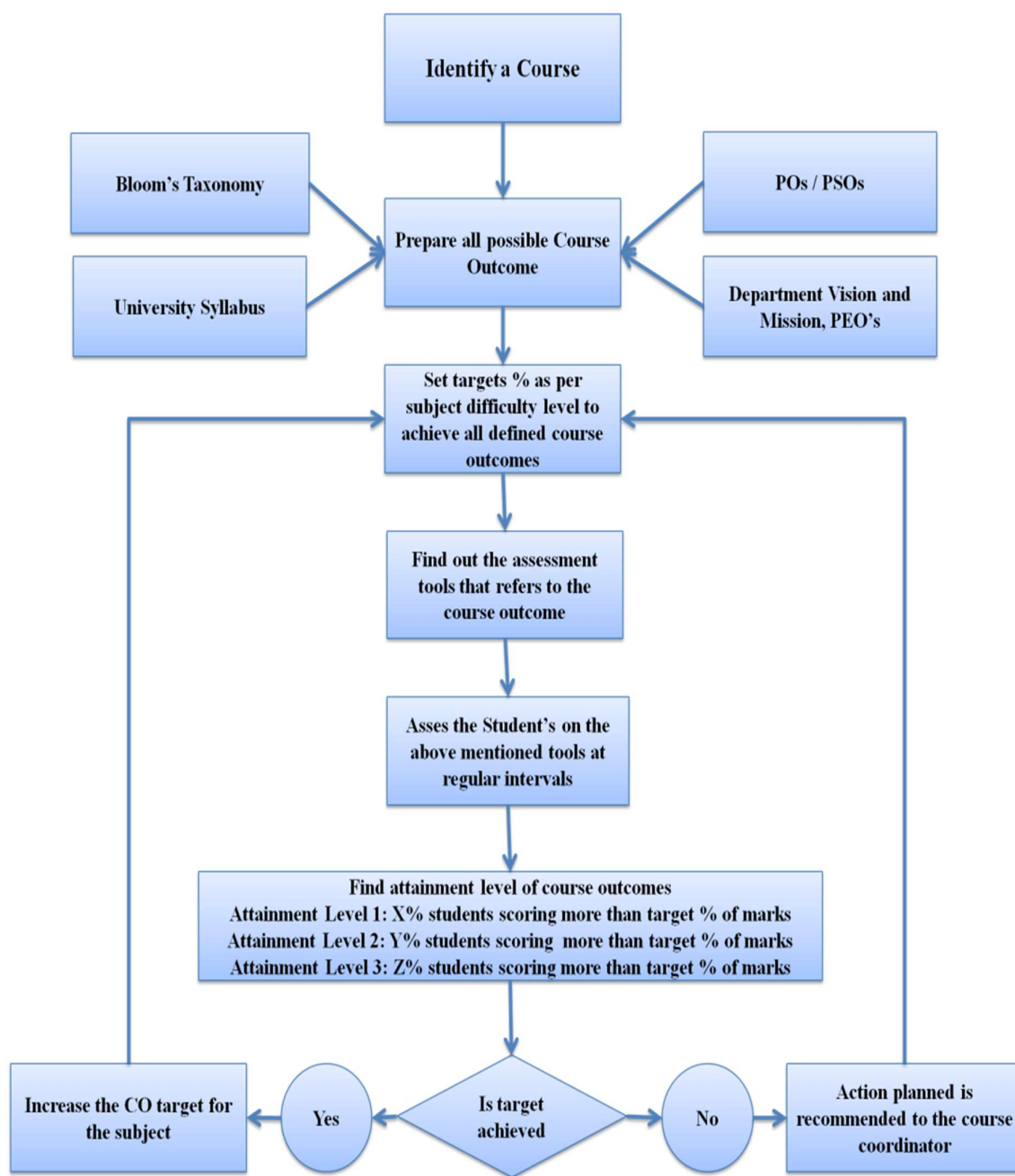
CO, PO, PSO Attainment Calculation (Sample)

ISI-6, RIICO Institutional Area, Sitapura, Jaipur-302022 (Rajasthan)

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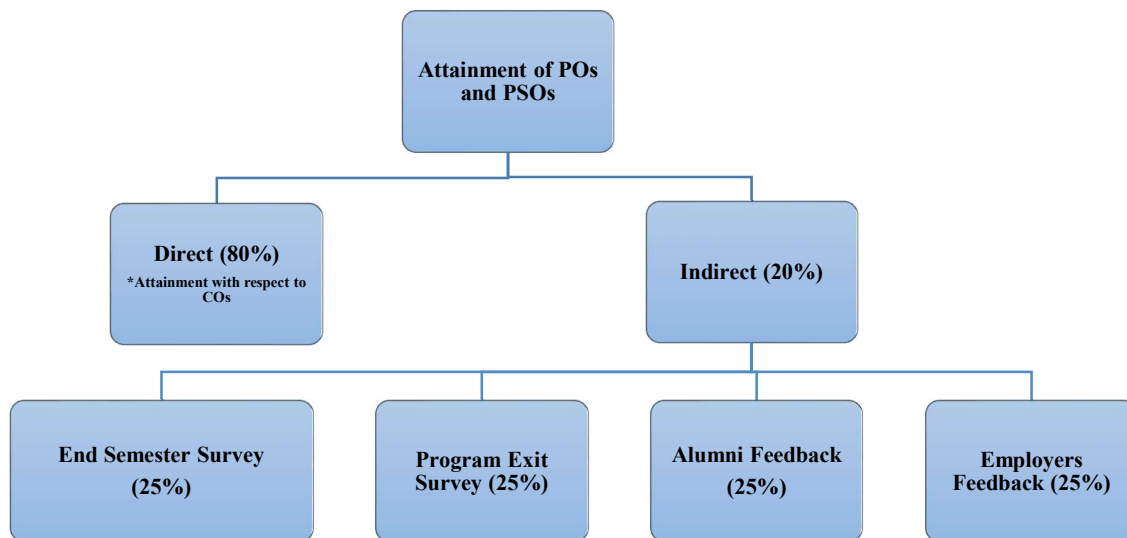
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CO Attainment Process



Dr. Mahesh Bunde
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PO / PSO Attainment

Assessment Tools Used:

- I Mid Term
- II Mid Term
- Class Test
- OBT
- Quiz
- RTU
- End Semester Survey
- Program Exit Survey
- Alumni Feedback
- Employers Feedback


Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Peernima College of Engineering
ISI-6, RICO Institutional Area
Sitapura, JAIPUR

	Total			1,034	36	780	31	883	36	851	36	845	30	782	837	962	0	931	39
	Overall Classwise CO Attainment			86.17	3.00	70.86	2.82	67.32	2.77	70.88	3.00	84.50	3.00	71.09	69.75	80.17		71.64	3.00
	COUNT			12	12	11	11	13	13	12	12	10	10	11	12	12	0	13	13
	Student Attainment Level 3			12			9		18		12		10					13	
	Student Attainment Level 2 %			100			91.81818		76.327673		100		100					100	
	Student Attainment Level 2			0			2		3		0		0					0	
	Student Attainment Level 2%			0			18.1818182		23.0769231		0		0					0	
	Student Attainment Level 1			0			0		0		0		0					0	
	Student Attainment Level 1 %			0			0		0		0		0					0	
	GAP ANALYSIS																		
	CO Attainments	Overall CO	Gap																
	Mid I Attainment	2.82	0.18																
	Mid II Attainment	2.77	0.23																
	RTU Component	3.00	0.00																
	DZ Attainment	3.00	0.00																
	Overall CO Attainment	3.00	0.00																
	Target	3																	
	Gap Identified																		
	Action to be taken																		
	Classwise PO Attainments	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO2	PSO3			
	Through Mid I	2.9181818	1.5272727				0.6363636	2.9181818						1.27273	0.4				
	Through Mid II	2.9166667	1.8666667	2.6666667	1.9444444	1.9444444	1.4444444	3						1.27778	0.43333	0.33333			
	Through RTU Component	3	2.6666667	3	1.8888889	1.8888889	1.4166667	3						1.88889	0.6	0.5			
	Through DZ	3	2	2.9166667	0.9444444	1.4444444	0.7566667	3						1.33333	0.4	0.33333			
	Overall PO attainments	3.00	2.63	3.00	1.78	1.83	1.23	3.00						1.59	0.40	0.33			
	Through CO																		
	Target	3	2.4	3	2	2	1.5	3						2	1.2	1			
	Overall Gap	0.00	0.37	0.00	0.22	0.17	0.27	0.00						0.41	0.80	0.67			
Instructions																			
1. Please check all fields information and fill up correctly. You will have to bring relevant information from previous sheets. While pasting select pasting values only. (Grey Color)																			
2. You are required to fill relevant data of student name, registration no. with reference to specific																			

Instructions

- Please check all fields information and fill up correctly. You will have to bring relevant information from previous sheets. While pasting select pasting values only. (Grey Color)
- You are required to fill relevant data of student name, registration no. with reference to specific

CO Attainment: PGP (3EE3-04), Overall analysis, III Sem, EE, Session 2021-22 (Batch 2020-24)

POORNIMA COLLEGE OF ENGINEERING,JAIPUR			Department of Electrical Engineering										NBA Process Implementation, Session 2020-21										PO Attainment Sheet																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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PO / PSO Attainment: B.Tech. (Electrical Engineering), Session 2021-22 (Batch 2020-24) (till I sem)

	Total	1318	900	1159	890	822	944	0	928	921	412	0	0	0	920	33	0	0	920	33	982	361	56	452	869	471	0	928	461	412	0	0	0	694	21	
	Count	18	18	18	18	18	18	0	18	18	18	0	0	0	18	18	0	0	18	18	51.1	1.63	54.5	53.4	56	25.1	48.3	26.2	51.6	25.6	22.9	0	0	0	18	18
	Average	73.2	50	64.4	49.5	45.6	52.4		51.6	51.1	22.9				51.1	1.63			51.1	1.63	54.5	53.4	56	25.1	48.3	26.2	51.6	25.6	22.9			0	0	1.17		
	Attainment Level 3 Count	16	7	15	8	3	10	0	0	0	0	0	0	0	0	0	0	0	0	10	8	1	0	6	0	0	0	0	0	0	0	0	0	0		
	Attainment Level 2%	88.89	38.89	83.33	44.44	16.67	55.56		0.00	0.00	0.00				0.00				0.00	55.56	44.44	100.00	0.00	33.33	0.00		0.00	0.00	0.00			0.00		0.00		
	Attainment Level 2 Count	18	17	16	15	15	17	0	13	12	0	0	0	0	14				14		17	16	1	0	15	0	0	13	0	0	0	0	0	3		
	Attainment Level 2%	100.00	94.44	88.89	83.33	33.33	94.44		72.22	66.67	0.00				77.78				77.78		94.44	88.89	100.00	0.00	83.33	0.00		72.22	0.00	0.00			16.67		16.67	
	Attainment Level 1 Count	0	1	2	3	2	1	0	5	6	18	0	0	0	4				4		1	2	0	18	3	18	0	5	18	18	0	0	0	15		
	Attainment Level 1%	0.00	0.06	0.11	0.17	0.17	0.06		0.28	0.33	1.00				0.22				0.22		0.06	0.11	0.00	1.00	0.17	1.00		0.28	1.00	1.00			0.83		0.83	
	Attainment (PS)Students getting level 3)	88.89	38.89	83.33	44.44	16.67	55.56		0.00	0.00	0.00				0.00				0.00	55.56	44.44	100.00	0.00	33.33	0.00		0.00	0.00	0.00			0.00		0.00		
	Target Achieved	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	YES	YES	YES	NO		YES		NO		NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES	YES	YES	NO		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02	PS03																				
	Target SEM I	1.08	1.08		1	1	1	1	1.1	1		2	1.08		1																					
	Mid Term II Attainments	0.93	0.55		2.33	1.00	1.19	0.89	1.66	1.11		0.92	0.69		0.33																					
	Mid Term I Attainments	1.12	0.62		3.00	1.21	1.33	1.21	2.47	1.24		1.11	0.70		0.33																					
	End Course Survey	1.02	1.50		2.39	1.67	1.56	1.63	2.33	1.56		1.96	0.62		0.57																					
	RTU Attainments	1.27	0.75		2.78	1.52	1.01	1.22	2.58	1.41		1.19	0.72		0.33																					
	Overall	1.12	0.61		2.44	1.26	1.56	1.41	2.80	1.22		1.07	0.62		0.39																			1		
	SEM Gap	0.72	0.95		0.39	0.79	0.49	0.95	0.82	0.78		0.93	0.34		0.51																					

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Department of Electrical Engineering																																																																																																			
NBA Process Implementation, Session 2020-21																																																																																																			
PO Attainment Sheet																																																																																																			
Batch 2020-2024 Semester II- RTU Component -Mid III-End Course Survey																																																																																																			
Section																																																																																																			
Category-A										Level 3										Level 2										Level 1																																																																					
Internal (Mid I & Mid II) Survey										60 % of students getting >										50-60 % of students getting > 60% marks										40-50 % of students getting >																																																																					
Lab/Seminar/Project- Internal										>80%										50-80%										<50%																																																																					
Lab/Seminar/Project- External										>70%										50-70-%										<50%																																																																					
RTU										50%-100% Marks										50%-70-%										0%-30%																																																																					
Overall										55-100%										55-40%										<40%																																																																					
Overall																																																																																																			
PO1																																																																																																			
PO2																																																																																																			
S. No.	Roll No.	Name of Students	Q. No.		PO1																				PO2																				Overall PO1 Overall %	Overall PO2 Overall %																																																					
			Max. Marks	Obt. Marks	201	202	203	204	205	206	207	208	209	210	Project	Seminar	PTS	Overall	Level	Overall	201	202	203	204	205	206	207	208	209	210	Project	Seminar	PTS	Overall	Level																																																																
					RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas	RTU	Plas																																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

PO / PSO Attainment: Analysis, B.Tech. (Electrical Engineering), Session 2021-22 (Batch 2020-24) (till III sem)

PO / PSO Attainment: B.Tech. (Electrical Engineering), Session 2021-22 (Batch 2020-24) (till IV sem)

PO / PSO Attainment: Analysis, B.Tech. (Electrical Engineering), Session 2021-22 (Batch 2020-24) (till IV sem)

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