PO ASSESSMENT PROCEDURE

PO/PSO ASSESSMENT TOOLS & WEIGHTAGE

➢ The program outcomes are measured by considering the course outcomes for all the courses at the end of the program.

➢ Course outcomes for each course are mapped with the program outcomes and program-specific outcomes.

➢ Direct and indirect assessment methods are used to calculate the achievement. PO/PSO assessment is done by giving 80% weight to direct assessment and 20% weight to indirect assessment.

➢ Direct assessment is based on the CO attainment obtained and the corresponding CO-PO/PSO mapping.

➢ **Direct PO attainment** of a particular PO is calculated by taking the average across all courses addressing that PO and/or PSO.

➢ **Indirect PO attainment** is done through the program exit survey, co-curricular activity survey and industrial visit survey.

Program Outcomes and Program Specific Outcomes		
Tools used	Process used	Frequency
Direct methods (Assignments, class test, class works, Seminars, Internal exams, university exams etc.	Shown below	During and end of semester
Indirect methods (Different surveys)		End of the semester

Table: List of assessment tools

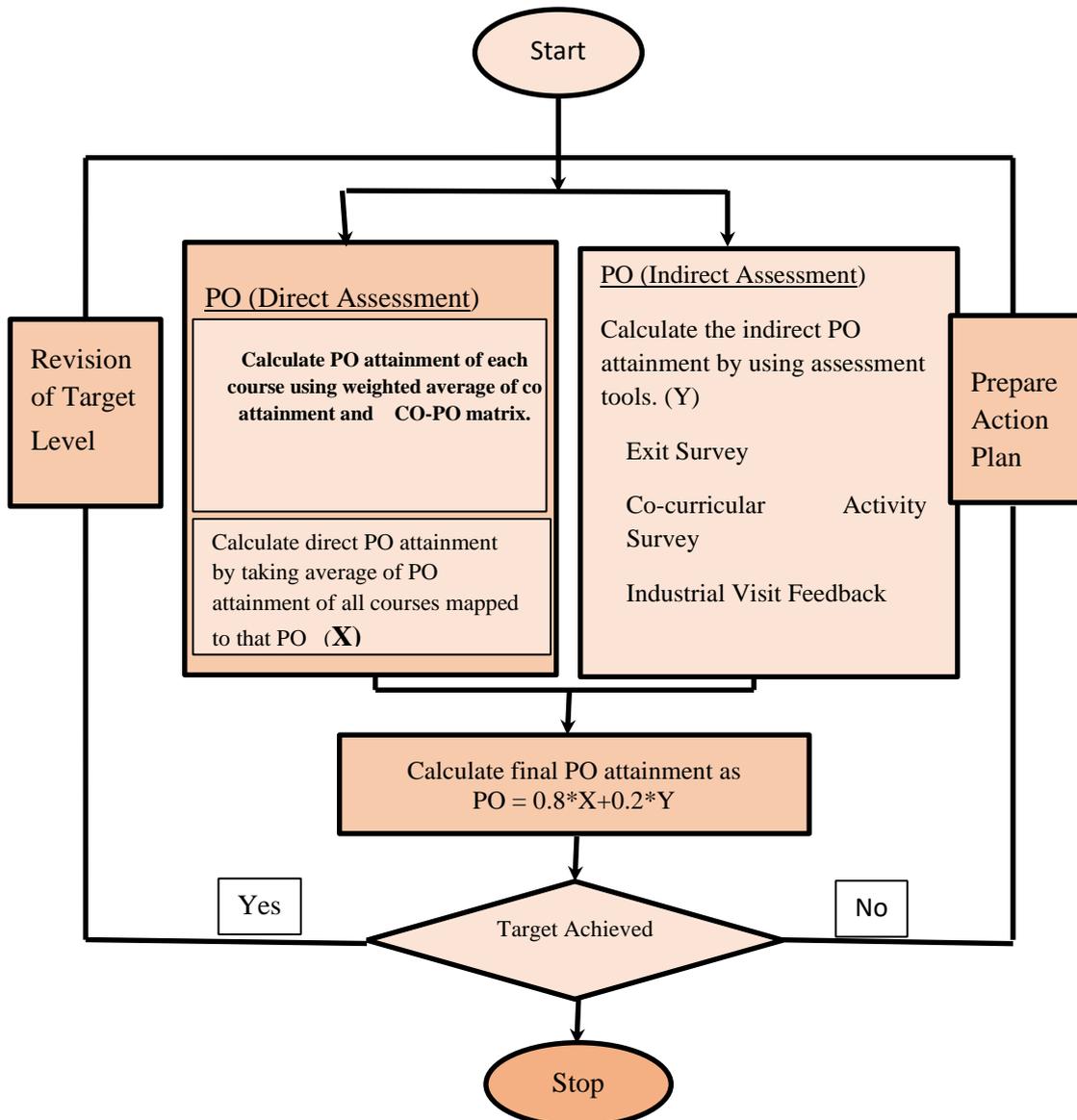The process used to measure the attainment of POs & PSOs.

Fig PO/PSO Assessment tools and weightage

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NAAC Cycle 2

Criterion: 2.6.2

PO attainment calculation

PO attainment of kth PO, PO_k is calculated using the equation.

$$PO_{k\_attainment} = \frac{\sum_{i=1}^{N} CO_i \times PO_{ik}}{3n}$$

where, N is the number of COs for the selected course.

CO_i is the attainment of ith CO

PO_{ik} is the CO_i - PO_k Mapping level

n is the number of COs having mapping with k^{th} PO_k,

3 is the maximum attainment level.

Sample PO attainment calculation:

PO attainment calculation of course EE402

CO	CO attainment	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO1	PSO2
CO 1	2.53	3		-	-	-	-	-	-	-	-	2	-	2	-
CO 2	2.17	3	2	-	-	-	2	-	-	-	-	2	-	2	2
CO 3	2.34	3		-	-	-	-	-	-	-	-	-	-	2	-
CO 4	1.85	2	1	2	-	-	-	-	-	-	-	-	-	1	-
CO 5	2.64	3	2	1	-	-	2	-	-	-	-	2	-	2	2
CO 6	2.37	3		-	-	-	2	-	-	-	-	-	-	2	2

PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO1	PSO2
ATTAINED	2.21	1.27	1.06	-	-	1.60	-	-	-	-	1.63	-	1.44	1.60

The direct attainment of PO2 for the subject EE 402 is calculated as

$$\frac{2.17 \times 2 + 1.85 \times 1 + 2.64 \times 2}{3 \times 3}$$

PO2 attainment =

Similarly, for all courses PO direct is calculated and average direct PO2 attainment of batch = 1.68

Indirect PO2 attainment of batch = 3

Total PO attainment = 0.8* direct attainment +0.2 * indirect attainment

Total PO1 attainment = 0.8*1.85+0.2*2.83 = 2.05