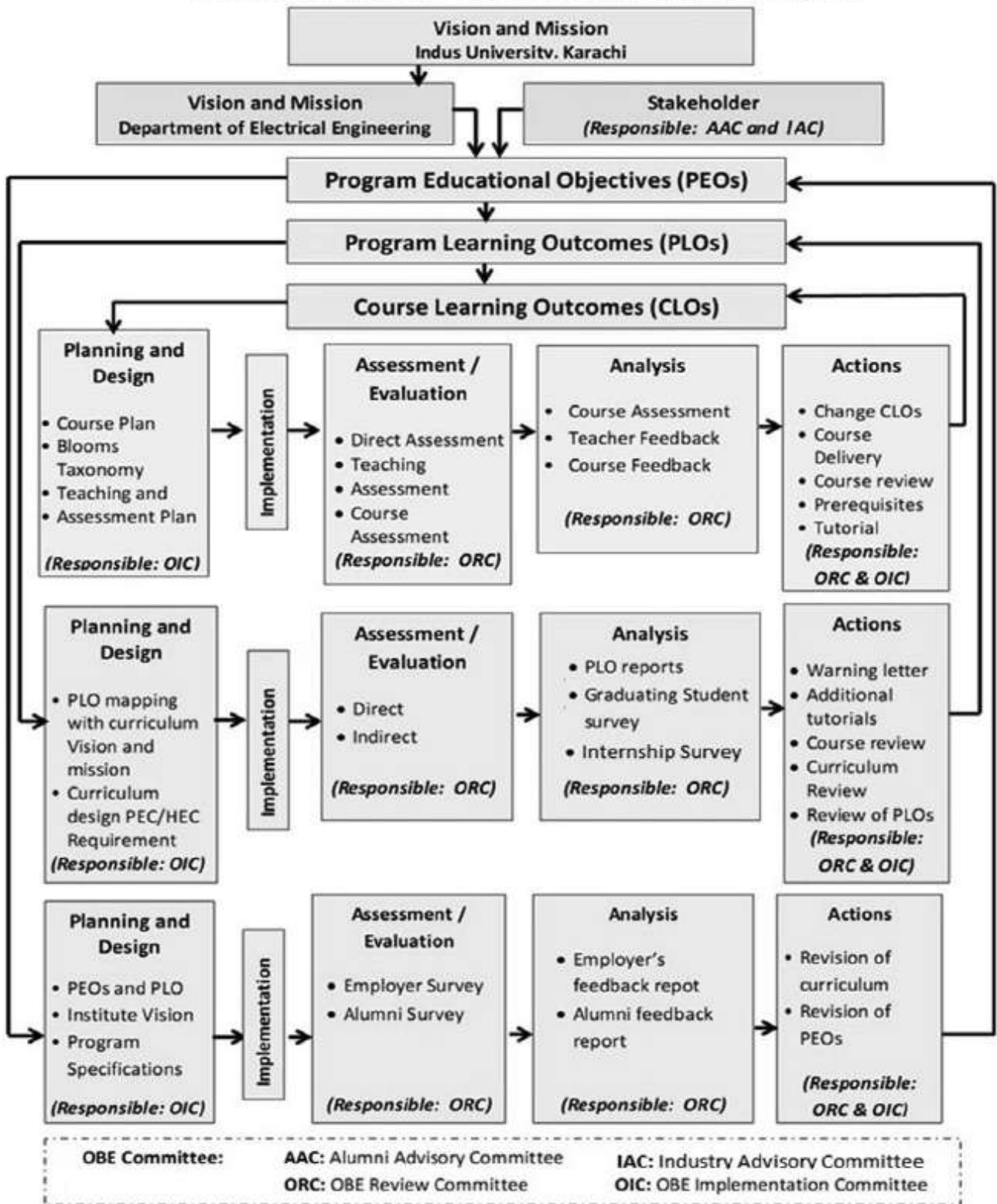


## Continuous Quality Improvement (CQI) Mechanism



**(a) Knowledge Profile (SK):**

Knowledge Profile (SK) = Curriculum (Knowledge Area / Sub Area) = SK-1 to SK-8 Different Categories

SK	Curriculum (Knowledge Area / Sub Area)	SK	Curriculum (Knowledge Area / Sub Area)
SK-1	Natural Sciences	SK-5	Engineering Technology Design
SK-2	Mathematics, Numerical Analysis, Statistics, Computer And Information Science	SK-6	Engineering Technologies
SK-3	Engineering Technology Fundamentals	SK-7	Comprehension
SK-4	Specialist Knowledge	SK-8	Technological Literature

**(b) Course Outcome (CO)**

Course Outcome (CO) also known as Course Learning Outcome (CLO) should have following conditions  
(i) Action Verb (ii) Condition (iii) Standard (Verbally describe the three steps to apply Nodal Analysis) (C, V, S)  
Outcome should be SMART: Specific + Measureable + Achievable + Realistic + Time Frame Observable

**(c) Taxonomy Domains**

There are three Taxonomy Domains and each has different level of attainments

- 1- Cognitive (C) = Knowledge (K) => 6 Levels of Taxonomy
- 2- Psychomotor (P) = Skills (S) => 7 Levels of Taxonomy
- 3- Affective (A) = Attitude (A) => 5 Levels of Taxonomy

COGNITIVE DOMAIN (Knowledge)		PSYCHOMOTOR DOMAIN (Skills)		AFFECTIVE DOMAIN (Attitude)	
ID	Domain	ID	Domain	ID	Domain
C1	Memorize	P1	Perception	A1	Receive
C2	Understand	P2	Set	A2	Provide Feedback
C3	Apply	P3	Guided Response	A3	Judging
C4	Analyzing	P4	Mechanism	A4	Organize
C5	Judging	P5	Significant Response Complex	A5	Appreciating
C6	Creating	P6	Adaptation		
		P7	Acting Pure		

**(d) Program Outcome (PO)**

Program Outcome (PO) also known as Program Learning Outcome (PLO) and also SYDNEY Accord (SA)  
( PO = PLO = SA )

PO	PLO	WA	ATTRIBUTE
PO-1	PLO-1	SA1	Engg. Technology Knowledge
PO-2	PLO-2	SA2	Problem Analysis
PO-3	PLO-3	SA3	Design/Development of Solutions
PO-4	PLO-4	SA4	Investigation
PO-5	PLO-5	SA5	Modern Tool Usage
PO-6	PLO-6	SA6	The Technician and Society
PO-7	PLO-7	SA7	Environment and Sustainability
PO-8	PLO-8	SA8	Ethics
PO-9	PLO-9	SA9	Individual and Team Work
PO-10	PLO-10	SA10	Communication
PO-11	PLO-11	SA11	Project Management
PO-12	PLO-12	SA12	Life-long Learning

**LEVEL**

**PROBLEM COMPLEXITY**

SP1	Depth of Knowledge required
SP2	Range of conflicting requirements
SP3	Depth of analysis required
SP4	Familiarity of issues
SP5	Extent of applicable codes
SP6	Extent of stakeholder involvement and level of conflicting requirements
SP7	Interdependence
SP1	Consequences
SP2	Judgement

**(e) Complex Problem (SP)**

Complex Engineering Problems have characteristic SP1 and some or all of SP2 to SP7, EP1 and EP2, that can be resolved with in-depth forefront knowledge.