

PROGRAM OBJECTIVE STATEMENTS (PEO)

All our alumni are able to:

1. Achieve career advancement and to pursue lifelong learning in related area of electronic engineering work or business.
2. Produce solutions to realelectronicengineering problems that are practical and sustainable.
3. Display exemplary interpersonal and leadership skills.
4. Perform relevant duties ethicallyat the work place and contribute to the betterment of the society.

PROGRAM OUTCOME (PO)

Latest FKEKK’s PO are:

1. Apply knowledge of mathematics, science, engineering and electronics fundamentals to solve complex engineering problems.
2. Undertake problem identifications, formulation and analysis of complex engineering problems.
3. Design systems, components, or processes to meet desired needs as well as analyze and interpret the results.
4. Investigate complex problems using research-based knowledge and research methods to provide valid conclusions.
5. Apply appropriate techniques, resources, and modern engineering and IT tools to complex engineering activities.
6. Assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.
7. Understand the needs for sustainable development and the impact of engineering solutions on society and environment.
8. Apply ethical principles and commit to professional ethics, responsibilities and norms of engineering practice.
9. Communicate effectively on complex engineering activities with the engineering community and with society at large.
10. Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary environment.
11. Recognize the needs for, and ability to engage in independent and life-long learning.
12. Apply knowledge and understanding of engineering and management principles as well as identify entrepreneurial and business opportunities in related areas.

TABLE 1: PEO VERSUS NEW PO

	PO1 (K)	PO2 (CTPS)	PO3 (CTPS)	PO4 (CTPS)	PO5 (P)	PO6 (EM)	PO7 (EM)	PO8 (EM)	PO9 (CS)	PO10 (LS/TS)	PO11 (LL/ES)	PO12 (LS/TS)	Weightage (%)
PEO1	X(3)										X(1)	X(1)	25%
PEO2		X(3)	X(3)	X(1)	X(2)		X(1)						41.66%
PEO3									X(2)	X(2)			16.67
PEO4						X(2)		X(2)					16.67

References

- K = Knowledge
- CTPS = Critical Thinking Problem Solving
- P = Practical
- EM = Ethic & Moral
- CS = Communication Skills
- LS/TS = Leadership and Teamwork Skills
- LL =Life Long Learning
- ES =Entrepreneurship Skills

Latest PO Mapping

No	New PO Statement	EAC Manual 2012	Current PO Statement	Bloom Range	Soft Skills
1	Apply knowledge of mathematics, science, engineering and electronics fundamentals to solve complex engineering problems	Engineering Knowledge (PO1)	PO1	C3	K
2	Undertake problem identifications, formulation and analysis of complex engineering problems	Problem Analysis (PO2)	PO3	C4	CTPS 3
3	Design systems, components, or processes to meet desired needs as well as analyze and interpret the results	Design / Development of Solution (PO3)	PO4	C5	CTPS 4
4	Investigate complex problems using research-based knowledge and research methods to provide valid conclusions	Investigation (PO4)	NA	C6	CTPS 5
5	Apply appropriate techniques, resources, and modern engineering and IT tools to complex engineering activities	Modern Tool Usage (PO5)	PO2	P4	TPS
6	Assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice	The Engineer and Society (PO6)	PO9	A3	EM 2
7	Understand the needs for sustainable development and the impact of engineering solutions on society and environment	Environment and Sustainability (PO7)	PO5	A3	EM 2
8	Apply ethical principles and commit to professional ethics, responsibilities and norms of engineering practice	Ethics (PO8)	PO6	A3	EM 2
9	Communicate effectively on complex engineering activities with the engineering community and with society at large	Communication (PO9)	PO7	A3	CS 4
10	Function effectively as an individual, and as a member or leader in diverse teams and in amulti-disciplinary environment.	Individual and Team Work (PO10)	PO8	A3	LS 2 /TS 3
11	Recognize the needs for, and ability to engage in independent and life-long learning	Life-Long Learning (PO11)	PO10	A3	LL 2/ES 1
12	Apply knowledge and understanding of engineering and management principles as well as identify entrepreneurial and business opportunities in related areas	Project Management and Finance (PO12)	PO11	A1 – A3	LS 2/TS 3

(e) Definition of Complex Problem Solving

The range of complex problem solving as required by the Programme Outcomes in Section 4.0 is defined as follows:

	Attribute	Complex Problems
1	Preamble	Engineering problems which cannot be resolved without in-depth engineering knowledge, much of which is at, or informed by, the forefront of the professional discipline, and have some or all of the following characteristics listed below:
2	Range of conflicting requirements	Involve wide-ranging or conflicting technical, engineering and other issues.
3	Depth of analysis required	Have no obvious solution and require abstract thinking, originality in analysis to formulate suitable models.
4	Depth of knowledge required	Requires research-based knowledge much of which is at, or informed by, the forefront of the professional discipline and which allows a fundamentals-based, first principles analytical approach.
5	Familiarity of issues	Involve infrequently encountered issues
6	Extent of applicable codes	Are outside problems encompassed by standards and codes of practice for professional engineering.
7	Extent of stakeholder involvement and level of conflicting requirements	Involve diverse groups of stakeholders with widely varying needs.
8	Consequences	Have significant consequences in a range of contexts.
9	Interdependence	Are high level problems including many component parts or sub-problems.

(f) Definition of Complex Engineering Activities

The range of complex engineering activities is defined as follows:

	Attribute	Complex Activities
1	Preamble	Complex activities means (engineering) activities or projects that have some or all of the following characteristics listed below:
2	Range of resources	Involve the use of diverse resources (and for this purpose, resources include people, money, equipment, materials, information and technologies).
3	Level of interaction	Require resolution of significant problems arising from interactions between wide-ranging or conflicting technical, engineering or other issues.
4	Innovation	Involve creative use of engineering principles and research-based knowledge in novel ways.
5	Consequences to society and the environment	Have significant consequences in a range of contexts, characterised by difficulty of prediction and mitigation.
6	Familiarity	Can extend beyond previous experiences by applying principles-based approaches.