

### ME367 Value Engineering

L	T	P	Credit	Area		CWS	PRS	MTE	ETE	PRE
3	0/1	2/0	4	DEC/GEC		15/25	25	20/25	40/50	-

**Objective:** To enable the students to understand the Value Engineering, Life Cycle Cost (LCC), Case studies. To understand concept of function analysis system techniques- FAST diagram, Case studies.

Syllabus		Contact Hours
<b>Unit-1</b>	An Overview of Value Engineering-Concepts and approaches of value analysis and engineering - importance of value, Function - identity, clarify – analysis	6
<b>Unit-2</b>	Evaluation of VE-Evaluation of function, Problem setting system, problem solving system, setting and solving management - decision - type and services problem, evaluation of value	8
<b>Unit-3</b>	Results accelerators, Basic steps in using the systems	6
<b>Unit-4</b>	Understanding the decision environment, Effect of value analysis on other work in the business- Life Cycle Cost (LCC), Case studies	8
<b>Unit-5</b>	VE Level of Effort-VE Team, coordinator, designer, different services, definitions, construction management contracts, value engineering case studies,	8
<b>Unit-6</b>	Effective organization for value work, function analysis system techniques- FAST diagram, Case studies	6
	Total	42

#### Reference Book:

1	Parker, D.E., “Value Engineering Theory”, Sundaram publishers, 1990
2	Miles, L.D., “Techniques of Value Engineering and Analysis”, McGraw Hill Book Co., 2nd End., 1972
3	Khanna, O.P., “Industrial Engineering and Management”, Dhanpat Rai and Sons, 1999.

#### Course Outcomes

CO1	Understand the basic concepts, techniques and applications of value engineering
CO2	Describe job plan of value engineering
CO3	Illustrate different value engineering techniques and versatility of value engineering.
CO4	Illustrate the efforts of value engineering team during the process of value engineering
CO5	Appraise the value engineering operation in maintenance and repair activities.
CO6	Create the value engineering team and discuss the value engineering case studies.

#### CO-PO/PSO Matrix

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	3	2	2	0	0	0	0	0	0	2	2	1	1
CO2	3	3	2	3	1	0	0	0	0	0	0	1	2	1	1
CO3	3	3	3	3	1	0	0	0	0	0	0	2	3	3	2
CO4	3	3	3	3	1	0	0	0	0	0	0	1	3	3	2
CO5	2	2	2	2	2	0	0	0	0	0	0	1	2	2	2
CO6	3	3	3	2	2	0	0	0	0	0	0	2	2	1	1