Program Outcomes (POs) of M.Tech. Program offered by SoEM at SMVDU

The curriculum and syllabi of M. Tech Two Year Full Time Post Graduate Degree Program is designed to achieve identified Post Graduate Attributes (PGAs) with following POs.

After successful completion of the Time Post Graduate degree program, a student(s) will be able to;

PO1. Engineering Knowledge:

Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. Problem Analysis:

Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/ Development of Solutions:

Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct Investigations of Complex Problems:

Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern Tool Usage:

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6. The Engineer and Society:

Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and Sustainability:

Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics:

Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and Team Work:

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication:

Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project Management and Finance:

Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning:

Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Course Outcomes of every course in M.Tech. (Energy Systems) Program are mapped to POs considering following;

- Value = Addressing to Zero Degree
- Value = Addressing to Low Degree
- Value = Addressing to Medium Degree
- Value = Addressing to High Degree

		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
span	CO-POMappingfor**M.Tech(EnergySystems)**TwoYearFullTimePostGraduateDegree Program												

#	Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	EML6011	3	2	3	2	2	3	3	1	2	2	2	3
2	EML6012	3	3	3	2	2	3	3	2	2	2	2	3
3	EML6013	3	2	2	3	2	3	3	2	2	2	3	2
4	EML6015	3	2	2	3	3	3	3	2	2	2	3	2
5	EME6011	3	3	2	2	2	2	2	2	2	2	2	3
6	EML6026 (Research Methodology)	-	3	1	3	3	-	-	1	2	2	-	3
7	EMP 6011	3	3	2	3	2	3	2	2	3	2	2	3
8	EML6016	3	3	2	3	2	2	2	2	2	2	2	3
9	EML6022	3	3	3	2	2	2	1	2	2	2	2	3
10	EME6020	3	3	2	2	3	3	3	1	1	2	2	3
11	EME6021	3	3	3	2	2	1	2	1	2	2	2	3
12	EML6023 (Disaster Management)	2	1	1	1	1	2	2	1	2	2	2	3
13	PCN 7067 (Discourse on "Universal Human Values : Understanding Harmony and Ethical Conduct)	-	-	-	-	-	3	3	3	3	-	-	3
14	EMP6012	3	3	2	3	2	3	2	2	2	2	2	3
17	EMD7011	3	3	2	2	1	3	3	1	3	2	1	3
18	EMC6011	3	1	1	2	2	3	3	1	1	3	2	3
19	EMD7012	3	3	3	3	3	3	3	3	3	3	3	3
20	EME6011	3	3	2	2	2	2	2	2	2	2	2	3
21	EML7013	3	3	3	2	3	3	3	1	2	2	1	3
22	EME7016	3	3	2	3	2	3	3	1	2	2	2	3
23	EME7026	3	2	3	2	2	2	2	2	2	2	3	3
24	EME6020	3	3	2	2	3	3	3	1	1	2	2	3
25	EME6021	3	3	2	3	2	2	2	1	2	2	2	3
26	EME7012	3	2	2	2	2	3	3	1	2	2	1	3
27	EME7013	3	2	2	2	2	3	3	1	2	2	1	3
28	EME7014	3	3	2	3	2	2	2	1	2	2	2	3
29	EME7024	3	2	3	2	3	3	3	1	2	2	2	3
30	EML7012	3	2	2	2	2	2	1	1	2	2	1	3
31	EME7022	3	3	3	2	3	3	3	1	2	2	1	3
32	EME7023	3	3	3	2	2	3	3	1	1	1	2	3
33	EME7025	3	2	3	2	3	3	3	1	2	2	2	3
35	EME7011	3	3	2	3	2	2	2	1	2	2	2	3
36	EME7027	3	2	3	3	2	3	2	2	2	3	2	3
37	EME7015	3	2	3	2	3	3	3	1	2	2	3	3
38	EME7021	3	2	3	2	2	2	2	2	2	2	2	3
39	EME7017	3	3	3	2	3	3	3	1	2	2	1	3
40	EME7031	3	2	1	1	2	3	3	1	1	2	1	3

| 41 | EME7032 | 3 | 2 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 3 |
| 42 | EML6021 | 3 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 1 | 2 | 1 | 3 |