



School of Energy Management

Program Structure of M.Tech.(Energy Systems) Two Year Full Time Degree

1 st Semester							2 nd Semester						
S. No.	Course Code	Course Title	L	T	P	C	S. No.	Course Code	Course Title	L	T	P	C
1	EML 6011	Non-Conventional Energy Sources	3	0	0	3	1	EML 6016	Energy Auditing	3	1	0	4
2	EML 6012	Fuel Technology	3	0	0	3	2	EML 6024	Solar Energy Utilization And System Design	3	1	0	4
3	EML 6013	Energy Economics And Planning	3	0	0	3	3	EME XXXX	School Elective-II	3	0	0	3
4	EML 6015	Thermal Science and Engineering	3	0	0	3	4	EME XXXX	School Elective-III	3	0	0	3
5	EME XXXX	School Elective-I	3	0	0	3	5	EML 6023	Disaster Management	2	0	0	2
6	EML 6026	Research Methodology	3	1	0	4	6	PCN 7067	Discourse on "Universal Human Values : Understanding Harmony and Ethical Conduct	3	0	0	0
7	EMP 6011	Energy Laboratory-I	0	0	6	3	7	EMP 6012	Energy Laboratory-II	0	0	6	3
8	EML 6025	Basic Electrical and Mechanical Engineering	1	0	0	1							
Total Credits						23	Total Credits						19
3 rd Semester							4 th Semester						
S. No.	Course Code	Course Title	L	T	S/P	C	S. No.	Course Code	Course Title	L	T	S/P	C
1	EME XXXX	School Elective-IV	3	0	0	3	1	EMD7012	Major project phase-II	0	0	40	20
2		Open Elective	3	0	0	3							
3	EMD 7011	Major project phase-I	0	0	20	10							
4	EMC 6011	Seminar	0	3	0	3							
5	LNL 6414	Communication Skills and Project Presentation	1	0	0	1							
Total Credits						20	Total Credits						20

Total Credits to be earned in order to become eligible for award of M. Tech. (Energy Systems) Two Year Full Time Degree: **82**

LIST OF SCHOOL ELECTIVES I						
S. No.	Course Code	Course Title	L	T	P	C
1	EME 6011	Materials for Solar Photovoltaics	3	0	0	3
2	EME 6012	Environmental Impact of Energy Sources	3	0	0	3
3	EME 7016	Pollution Control in Power Plants and Automobiles	3	0	0	3
4	EME 7026	Energy Scenario and Energy Policy	3	0	0	3
5	EME 6013	Solar Energy for Industrial Process Heat	3	0	0	3
6	EME 6014	Solar Thermal Power Generation	3	0	0	3
7	EME 6015	Generation, Transmission, Distribution and Utilization of Power	3	0	0	3
LIST OF SCHOOL ELECTIVES II & III						
S. No.	Course Code	Course Title	L	T	P	C
1	EME 6016	Solar Photovoltaic Power Plants: Planning & Design	3	0	0	3
2	EME 6020	Biomass and Bio Energy Systems	3	0	0	3
3	EME 6021	Industrial Energy Systems	3	0	0	3
4	EME 7012	Wind Energy Systems	3	0	0	3

5	EME 7013	Small Hydro Systems	3	0	0	3
6	EME 7014	Solar Passive Architecture	3	0	0	3
7	EME 7022	Instrumentation and Control in Energy Systems	3	0	0	3
8	EME 7024	Fuel Cell & Hydrogen Energy	3	0	0	3
9	EME 7025	Solar Refrigeration and Air-Conditioning	3	0	0	3
LIST OF SCHOOL ELECTIVES IV						
S. No.	Course Code	Course Title	L	T	P	C
1	EME 7011	Energy Efficiency in Buildings	3	0	0	3
2	EME 7015	Decentralized Generation Systems	3	0	0	3
3	EME 7023	Energy Storage	3	0	0	3
4	EME 7027	Smart Grid Technologies	3	0	0	3
5	EME 7021	Demand Side Management & Integration of Energy	3	0	0	3
6	EME 7028	Electric Vehicles	3	0	0	3
LIST OF OPEN ELECTIVES						
S. No.	Course Code	Course Title	L	T	P	C
1	EME 7017	Cogeneration & Energy Efficiency	3	0	0	3
2	EME 7031	Waste to Energy	3	0	0	3
3	EME 7032	IC Engines and Alternative Fuels	3	0	0	3
4	EME 7033	Integrated Energy Systems	3	0	0	3
5	EME 7034	Rural Electrification & its Management	3	0	0	3
6	EME 7035	Renewable Energy Technologies and Grid Integration	3	0	0	3
7	EME 7036	Heating, Ventilating and Air-Conditioning	3	0	0	3