

M. Tech. (Renewable Energy), R19 (2019 – 2021)

COURSE STRUCTURE
For
M. Tech. (RENEWABLE ENERGY), R19

SCHOOL OF RENEWABLE ENERGY AND ENVIRONMENT
INSTITUTE OF SCIENCE AND TECHNOLOGY



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India

**Jawaharlal Nehru Technological University Kakinada:
Kakinada - 533003**

**Institute of Science and Technology
School of Renewable Energy and Environment
M. Tech. (Renewable Energy), R19**

COURSE STRUCTURE

I Year - M. Tech. I Semester

S. No	Course No	Course Name	P.Os	category	L	T	P	Credits	Marks
1		Basics of Energy Engineering			3	0	0	3	100
2		Renewable Energy Technologies			3	0	0	3	100
3		Elective –I i) Solar Photovoltaics ii) Cogeneration and Energy Efficiency iii) Power Quality			3	0	0	3	100
4		Elective –II i) Solar Thermal Systems ii) Computational Fluid Dynamics iii) Modelling, Analysis and Economics of Energy systems			3	0	0	3	100
5		Research Methodology and IPR			2	0	0	2	100
6		Energy Systems Simulation Laboratory - I			0	0	4	2	100
7		Renewable Energy Laboratory - I			0	0	4	2	100
8		Audit Course - 1			2	0	0	0	100
Total					16	0	8	18	800

M. Tech. (Renewable Energy), R19**COURSE STRUCTURE****I Year - M. Tech. II Semester**

S. No	Course No	Course Name	P.Os	Category	L	T	P	Credits	Marks
1		Instrumentation for Energy Systems			3	0	0	3	100
2		Energy Auditing and Demand Side Management			3	0	0	3	100
3		Elective –III i) Energy Storage Technologies ii) Smart Grid Systems and Technologies iii) Integration of Renewable Energy Sources			3	0	0	3	100
4		Elective –IV i) Solar Refrigeration and Air-conditioning ii) Evolutionary Algorithms and Applications iii) Hydrogen and Fuel Cells			3	0	0	3	100
5		Energy Systems Simulation Laboratory - II			0	0	4	2	100
6		Renewable Energy Laboratory - II			0	0	4	2	100
7		Mini Project with Seminar			0	0	4	2	100
8		Audit Course - 2			2	0	0	0	100
Total					14	0	12	18	800

M. Tech. (Renewable Energy), R19

COURSE STRUCTURE

II Year - M. Tech. III Semester

S. No.	Course No	Course Name	P.Os	Category	L	T	P	Credits	Marks
1		Program Elective /Moocs			3	0	0	3	100
2		Open Elective/Moocs			3	0	0	3	100
3		Dissertation Phase - I (to be continued and evaluated next semester)			0	0	20	10	----
Total					6	0	20	16	200

II Year - M. Tech. IV Semester

S. No.	Course No	Course Name	P.Os	Category	L	T	P	Credits	Marks
1		Dissertation Phase-II (continued from III Semester)			0	0	32	16	100
Total					0	0	32	16	100