

Course Plan				
Course code	Course name	L T P	CH	Credit
EN 709	Renewable Energy Integration	3 0 0	3	3

Topics	hours	
Need for Integration of Renewable Energy Schemes, Planning of RE development & Constraints on RE integration	1	
Solar PV Schemes, components & controls	4	
Wind electric generator - Types, components & control	4	
Small Hydropower – turbine, generator & control	2	
Hybrid Energy Systems – topologies, controls & operation	3	
Biomass gasification based power generation	1	
Effects of RE systems on the grid	1	
Interfacing techniques	1	
Power converters - types & control	3	
Grid-connected energy storage schemes	3	
Microgrids –	3	
Economics of RE systems – levelised generation cost, Benefit to cost ratio, net present value, payback period	6	
Innovations required in technology and policy	1	
Case studies	3	
Total	36	