

Course title: Energy System Infrastructure and Operations			
Course code: DSE 103	No. of credits: 3	L-T-P: 37-08-00	Learning hours: 45
Pre-requisite course code and title (if any):			
Department: Sustainable Engineering			
Course coordinator: Prof. Naqui Anwer		Course instructor: Prof. Naqui Anwer	
Contact details: naqui.anwer@terisas.ac.in			
Course type: Core		Course offered in: Semester 1	
<p>Course Description:</p> <p>The structure of power systems and their operations are vital for system reliability, control, security and power quality. Further many countries, including India, are witnessing restructured electricity markets. In this deregulation process, it is important to focus on managerial as well as technical aspects of energy system infrastructure and their operations. This course is designed to educate students regarding various components of energy system infrastructure and how the power market is assisting in the reliable operation of the grid.</p>			
<p>Course objectives:</p> <ul style="list-style-type: none"> • To familiarize students with basic principles of power system elements • To understand the energy market and services offered by these energy markets. • To understand operational planning activities like economic load dispatch, unit commitment and power flow • To impart knowledge about transmission and distribution systems • To understand ancillary services management and their categorization 			