



Course Description	
Course title	Wind Energy Technology
Course code	ECE 333
College	Engineering
Department / Program	Electrical Engineering/ Renewable Energy
Year/ Level	4/8
Course Type	<p>A.</p> <p><input type="checkbox"/> University</p> <p><input type="checkbox"/> College</p> <p><input type="checkbox"/> Department</p> <p><input checked="" type="checkbox"/> Program</p> <p><input type="checkbox"/> Others</p> <p>b.</p> <p><input checked="" type="checkbox"/> Required</p> <p><input type="checkbox"/> Elective</p>
Credited Hours	(3 Cr. Hrs)
Contact Hours	(LT:2, LB:2 ,TR:0)
Pre-requisites (if any)	ECE 331/ECE 346
Co-requisites (if any)	---
Course description	Wind Energy Systems including wind energy and wind power design and principles, operation of wind energy systems, economic analysis of wind energy system, site selection and limitations, wind conditions data monitoring and analysis, calculations of electrical power capacity from windmills, integration of windmills electricity with electrical network.



Course Main Objectives	<ul style="list-style-type: none">- Judge qualitatively how the terrain influences the wind resource- calculate and analyse wind resource and energy production for a wind- Introduce the history of wind turbine development- Recognize the characteristics of the wind and its impact on selected place- Design, manufacture, and operation of modern wind turbines- Practical testing of wind turbine engineering in laboratory- Explore the political and economic of wind energy
Learning Outcomes	Knowledge and Understanding Define the concepts of Wind energy technology
	Skills: Apply wind energy technology concepts and laws to solve problems.
	Values: Work individually or in teams in laboratories and on research projects professionally.
References	<ol style="list-style-type: none">1- Wind Energy Explained, J.F. Manwell..., Wiley2- Wind Power in Power Systems, A. Thomas..., John Wiley3- Wind Energy Conversion Systems, L. L. Freris..., Prentice Hall