



Lectures of Electrical Engineering Department

Subject Title: power& machines

Class: 2E

	Lecture sequences:	First lecture	Instructor Name: Dr. mohammad ahmed ali
	<p>The major contents:</p> <ol style="list-style-type: none"> 1- Electrical transformers , types, construction. 2- The transformer e.m.f equation & excitation winding. 3- The transformation ratio of transformer . 		
Lecture Contents	<p>The detailed contents:</p> <ol style="list-style-type: none"> 1- Classification of them into single and three-phase, study of primary and secondary windings, study of the iron core and its components, study of magnetic flux in the core and theory of electromagnetic induction. 2- Study the generation of induced voltages in the two windings when the transformer without loading , the components of no load current, the phenomenon of hysteresis and eddy currents . Deriving the equation of e.m.f in the primary and secondary windings. 3- The method of finding the transformation ratio in transformers, solving mathematical problems to find the amount of magnetic flux and the value of the voltage induced by the transformation ratio. 		

