

Code	ECE 555
Name	Advanced Theory of Electrical Machines
Hour per week	3 (3+0)
Credit	3
ECTS	10
Level/Year	Graduate / Master, Ph.D.
Semester	Fall
Туре	Elective
Prerequisites	None
Content	DC motor transient and steady state equations, Derivation of transfer functions of DC motor, Controller design for dc motor control, Review of induction machine theory, Derivation of equivalent circuits of induction machine, Derivation of equivalent circuit used in the field oriented controlled induction machine, Analysis of induction machine in per-unit system, Equivalent circuit of induction machine used in the transients, Analysis of induction machine for unbalanced cases with symmetrical components, Analysis of induction machine for non-sinusoidal supply cases by means of harmonic equivalent circuit.