

Ankara Üniversitesi
Kütüphane ve Dokümantasyon Daire Başkanlığı
Açık Ders Malzemeleri

Ders izlenme Formu

Dersin Kodu ve İsmi	EEE104 Circuit Analysis I
Dersin Sorumlusu	Assoc. Prof. Dr. Hakkı Alparslan ILGIN Dr. Deniz KARAÇOR
Dersin Düzeyi	Undergraduate
Dersin Kredisi	4
Dersin Türü	Theoretical
Dersin İçeriği	Circuit variables, circuit theory, voltage and current concepts, ideal basic circuit elements, power and energy, voltage and current sources, Ohm's Law, circuit model, Kirchhoff's Laws, dependent source circuit analysis, resistor combinations, voltage and current divider, voltage and current measurement, Delta-Y equivalent circuits, source transformations, node-voltage method, mesh-current method, superposition, operational amplifiers, inductors, capacitors, series and parallel combinations of inductors and capacitors, mutual inductance, natural and step response of RL and RC circuits, sequential switching, unbounded response, natural and step response of parallel and series RLC circuits.
Dersin Amacı	Building knowledge on DC circuit analyzing, methods on circuit analysis. Analysis, design and modelling of circuits consist of circuit elements such as DC voltage and current sources, resistor, inductor and capacitor. Using source transformations, Thevenin and Norton equivalent circuits. Learning mesh-current, node-voltage methods and superposition principle on DC circuit analysis. Power and maximum power transfer, and energy concepts. Using passive sign convention on power and voltage-current related equations.
Dersin Süresi	4 hours/week
Eğitim Dili	English
Ön Koşul	-
Önerilen Kaynaklar	Text Book: Electric Circuits by James W. Nilsson, Susan Riedel
Dersin Kredisi (AKTS)	6
Laboratuvar	-
Diğer-1	-