

Subject: Applied Electrical Engineering

EE-331	Subject: Applied Electrical Engineering	3CH	
		Theory+Lab (2+1)	
Pre-req.	Nil	Category	Foundation Course
Course Contents as per PEC Guidelines 2023-2024			
• Introduction to electrical engineering • Quantities, SI units • Electric circuits • Charges, • Current Voltage • resistance, energy and power, series/parallel circuits,KCL,KVL,review of RLC circuit and applications, AC/DC motors, their types and control. • Transformers, ac circuits, power factors. • Generators; transformers; single and multi-phase. AC/DC circuits; power factor. Electronics and circuit analysis • Integrated circuits, resistors, microprocessors. Controller and their types • Integrated circuits, microprocessors and applications, Electronics and PCB Design			

Weekly plan/ Reference Books	
1	Introduction to electrical engineering
2	Quantities, SI units
3	Electric circuits
4	Charges, Current Voltage, resistance, energy and power
5-6	Series/parallel circuits,KCL,KVL,review of RLC circuit and applications, AC/DC motors, their types and control.
7-8	Transformers, ac circuits, power factor
9	MID TERM EXAMS
10	Transformers, ac circuits, power factor
11-12	Generators; transformers; single and multi-phase. AC/DC circuits; power factor
13	Electronics and circuit analysis
14	Integrated circuits, resistors, microprocessors. Controller and their types
15-16	Integrated circuits, microprocessors and applications, Electronics and PCB Design
17	Revision
18	End Semester Exam

TEXT AND REFERENCE BOOKS:

- Thomas L. Floyd, David M. Buchla, "Electronics Fundamentals: Circuits, Devices, and Applications", 8th Ed. 2009, Prentice Hall
- John Bird, "Electrical Circuit Theory and Technology", 2nd Ed., 2003, Newnes Publication.
- C.L. Wahdwa, "Basic Electrical Engineering", 2nd Ed., 2006, New Age International Publishers
- Heinz Schmidt-Walter, Ralf Kories, "Electrical Engineering: a pocket reference", 2007, Artech House
- 5. Allan R. Hambley, "Electrical Engineering: Principles and Applications", 5th Ed., 2010, Prentice Hall

