

Lesson Plan

Name of the Faculty : Er. Sorabh Malhotra

Discipline : Electronics and Communication Engineering

Semester : 8th

Subject : **Transducer and Its Applications (ECE-420N)**

Lesson Plan Duration : 15 weeks (from January, 2021 to April, 2021)

****Work Load (Lecture / Practical) per week (in hours) :** Lectures-03

Week	Theory	
	Lecture Day	Topic (including assignment / test)
1 st	1 st	Definition of transducer
	2 nd	Advantages of an electrical signal as out-put
	3 rd	Basic requirements of transducers
2 nd	4 th	Primary and Secondary Transducer
	5 th	Analog or digital types of transducers
	6 th	Resistive Transducer
3 rd	7 th	First Open Book Test
	8 th	Inductive Transducer
	9 th	Capacitive Transducer
4 th	10 th	Piezoelectric Transducer
	11 th	Photoelectric Transducer
	12 th	Hall effect Transducer
5 th	13 th	Measurement of pressure – Manometers
	14 th	Force summing devices
	15 th	Electrical transducers
6 th	16 th	Measurement of temperature – Metallic resistance thermometers
	17 th	Semi conductor resistance sensors (Thermistors)
	18 th	First Assignment
7 th	19 th	Thermo-electric sensors
	20 th	Pyrometers
	21 st	Measurement of displacement – Potentiometric resistance type transducers
8 th	22 nd	Inductive type transducers
	23 rd	Differential transformer (L.V.D.T)
	24 th	Capacitive transducers

9 th	25 th	Hall effect devices
	26 th	Strain gage transducers
	27 th	2 nd Open Book Test
10 th	28 th	Measurement of velocity – variable reluctance pick up
	29 th	Electromagnetic tachometers
	30 th	Photoelectric tachometer
11 th	31 st	Toothed rotor tachometer generator
	32 nd	2 nd Assignment
	33 rd	Measurement of Force – Strain-gauge
12 th	34 th	Load cells
	35 th	Pneumatic load cell
	36 th	LVDT type force transducer
13 th	37 th	Measurement of Torque
	38 th	3 rd Open Book Test
	39 th	Torque meter
14 th	40 th	Torsion meter
	41 st	Absorption dynamometers,
	42 nd	Inductive torque transducer
15 th	43 rd	Digital methods
	44 th	Revision
	45 th	Revision

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