Govt. Polytechnic, Manesar (Gurgaon)

LESSON PLAN

NAME OF THE FACULTY : - HIMANSHU YADAV

DISCIPLINE : - ECE

SEMESTER : - FOURTH

SUBJECT : - EDFT

LESSON PLAN DURATION : - 15 weeks (from January 2018 to April 2018)

WORK LOAD (LECTURE/PRACTICAL) PER WEEK (IN HOURS):- LECTURE-**00**, PRACTIACL-0**6**

WEEK	THEORY		PRACTICAL	
	LECTURE DAY	**TOPIC (including assignment/test)**	**PRACTICAL DAY**	**TOPIC**
1st			1st	Electronic Design 1.1 Selection and use of commonly used active and passive components 1.2 Testing of active and passive components
			2nd	Electronic Design 1.1 Selection and use of commonly used active and passive components 1.2 Testing of active and passive components

2nd			3rd	1.3 Develop skills in assembly of components, soldering, and soldering techniques 1.4 Procedure for Cabinet Making
			4th	1.3 Develop skills in assembly of components, soldering, and soldering techniques 1.4 Procedure for Cabinet Making
3rd			5th	ALLOTMENT OF PROJECT TO STUDENTS
			6th	ALLOTMENT OF PROJECT TO STUDENTS
4th			7th	Fabrication Techniques 2.1 Printed Circuit Boards (PCBs): a) PCB board materials, their characteristics and plating, corrosion and its prevention. b) Photo processing, screen printing, etching, high speed drilling, buffing, surface treatment

				and protection from harsh environments, plated through holes, double sided and Multilayer PCBs.
			8th	Fabrication Techniques 2.1 Printed Circuit Boards (PCBs): a) PCB board materials, their characteristics and plating, corrosion and its prevention. b) Photo processing, screen printing, etching, high speed drilling, buffing, surface treatment and protection from harsh environments, plated through holes, double sided and Multilayer PCBs.
5th			9th	c) Standards of board sizes. Modular assemblies edge connectors, multi board racks, Flexible boards. d) Assembly of circuits on PCB, soldering techniques, role of tinning, flow and wave Soldering, solder ability, composition of solder. Edge connector. Elements of wire Shaping.
			10th	c) Standards of board sizes. Modular assemblies edge

				connectors, multi board racks, Flexible boards. d) Assembly of circuits on PCB, soldering techniques, role of tinning, flow and wave Soldering, solder ability, composition of solder. Edge connector. Elements of wire Shaping.
6th			11th	Production Storage and supply of components for assembly, role of incoming inspection of Components, assembly line reduction, tools and jigs for lead bending. Manual and Automatic insertion techniques. Closed loop assembly of modules and/or complete Instruments. Specific examples of small scale and large-scale production be given to Illustrate above mentioned methods.
			12th	Production Storage and supply of components for assembly, role of incoming inspection of Components, assembly line reduction, tools and jigs for lead bending. Manual and Automatic insertion techniques. Closed loop assembly of

				modules and/or complete Instruments. Specific examples of small scale and large-scale production be given to Illustrate above mentioned methods.
			13th	Project guidance to students
			14th	Testing Jigs and fixtures for operational testing of modules / sub-assemblies. Sequence Testing for failure analysis. Environmental testing at elevated temperature and Humidity. Vibration and mechanical endurance testing. Packing for transportation.

8th			15th	Documentation Statement of brief specifications, detailed specifications and limitations. Block diagram detailed diagrams. Testing and checking points. Warning relative to high voltage for Handling during repair. Fault location guide. Simple solutions for fault removal
			16th	Documentation Statement of brief specifications, detailed specifications and limitations. Block diagram detailed diagrams. Testing and checking points. Warning relative to high voltage for Handling during repair. Fault location guide. Simple solutions for fault removal
9th			17th	Introduction to log books and history sheets
			18th	Introduction to log books and history sheets

10th			19th	Project review
			20th	Project review
11th			21th	Design and prepare a PCB, mount the components
			22th	Design and prepare a PCB, mount the components
12th			23th	Computer aided design of electronics circuit using different software like Eagle, ORCAD, and Circuit Maker.
			24th	Computer aided design of electronics circuit using different software like Eagle, ORCAD, and Circuit Maker.
13th			25th	Project review
			26th	Project review
14th			27th	of SMDs (Surface Mount Devices)
			28th	of SMDs (Surface Mount Devices)
15th			29th	**SUBMISSION OF PROJECT**
			30th	**SUBMISSION OF PROJECT**