

Easwari Engineering College
Ramapuram 600 089
Department of Electrical and Electronics Engineering

Academic Year: 2018-19
Pedagogical Initiatives for Effective Teaching
Odd Semester

<u>S.no</u>	<u>Name of the Faculty</u>	<u>Topic</u>	<u>Methodology Used</u>	<u>Target Audiences</u>	<u>Date</u>
1	Dr.E.KALIAPPAN Ph.D	Block diagram reduction techniques	Flash cards	III yr A sec	13/7/18
		Unit- 1 & 2	Quiz	III yr A sec	3/8/18
		Time response, Root locus, Bode plot and Nyquist Plot	Simulation study using MATLAB	III yr A sec	11/9/18
2	Dr.K.MALA Ph.D	Speed control of steam turbine	Model	III year A & B	13/07/2018
3	Dr.R.KARPAGAM Ph.D	Classification of nano materials	Flip class	IV A and B	14/7/2018
		Basics concepts on nano materials	Quiz	IV A and B	29/8/2018
		Working animation of targeted drug delivery system	Animated videos	IV A and B	
4	Dr.. M.DEVA BRINDA	Causes of over voltages	Quiz	IV A and B	13/7/2018
		Voltage multiplier circuits and voltage doubler circuits	Quiz	IV A and B	26/7/2018, 27/7/2018
		Insulation Coordination	Quiz	IV A and B	3/9/2018
5	Mr. P. MARISHKUMAR M.Tech (Ph.D)	Classification of DC Motors	Flash cards	II year Mech A and B	13.7.18
		Characteristics of DC Motor	Flash cards	II year Mech A and B	16.8.18
6	Mrs. D.CHANDRAKALA M.E	Transformers, DC machine	Quiz	II A and B	3.8.18 & 2.8.18, 5.9.18 & 28.8.18
		Transformer	Demonstration at lab	II A and B	20.7.18 & 25.7.18

		DC machine starters	Demonstration at lab	II A and B	31.8.18 & 5.9.18, 17.9.18 & 18.9.18
7	Mr. K.V. THILAGAR M.E (Ph.D)	IGBT construction and working	model based	III EEE A & B	11.07.2018
		Power Factor Controller	Simulation	III EEE A & B	19.07.2018
8	Mrs. J. LYDIA M.E	Coordinate systems	Charts	II EEE-A-57, II EEE-B-58	11.7.18, 30.7.18&
		Formulas in electric field and magnetic field	Flash cards	II EEE-A-57, II EEE-B-58	16.8.18
9	Mrs. K.A. INDU SAILAJA M.E	Block diagrams of 8259,8251,8279,8237	Flash cards	III year A & B	15.09.2018
		Instruction set of 8051 microcontroller	Quiz	III year A & B	24.09.2018
		Programming of 8085 & 8051	simulation using open source software	III year A & B	1.10.2018
10	Mr. P.PUSHPAKARTHICK M.E	Rectifiers	chart based model	II YEAR A& B	18/07/2018
		Amplifiers	NPTEL VIDEOS	II YEAR A& B	4/09/2018
11	Mr. V.VIJEESH M.E	Outline about power system analysis	Mind Mapping	III EEE A & B	02.07.2018
		Power Flow Analysis	NPTEL videos	III EEE A & B	19.07.2018
		Formulas for fault Analysis	Flashcard	III EEE A & B	31.08.2018
12	Ms. B. PONKARTHIKA M.E	Load dispatch problems	Problem data took from Southern Region Load Dispatch Centre report	II EEE-A-57, II EEE-B-58	20/9/18 & 25/9/18
		Supercritical boilers	Animated videos	II EEE-A-57, II EEE-B-58	4/7/18 & 6/7/18
		Energy scenario	Mind Mapping	II EEE-A-57, II EEE-B-58	2/7/18 & 3/7/18
13	Mr. G.VIGNESH M.E	Measurement of Blood Pressure	Model Based	IV EEE A - 48	18/7/2018
		Measurement of Heart Rate and Sound	Animated videos	IV EEE A - 49	24/7/2018
		Blood PH analyser	Model Based	IV EEE A - 47	27/7/2018
14	Mrs.S.P.BABY SHYNELA M.E	Measurement of Blood Pressure	Model Based	IV EEE B	19/7/18
		Measurement of Heart Rate and	Animated videos	IV EEE B	26/7/18

		Sound			
		Blood PH analyser	Model Based	IV EEE B	30/7/18
15	M.LAVANYA	Time response, Root locus, Bode plot and Nyquist Plot	Simulation study using MATLAB	III year B	18/09/2018
		Unit - 1 & 2	Online Test	III year B	11/08/2018
16	A.SIDDARTHAN	DC circuit breaker, MCCB	Model based study	IV year A & B	04/09/2018,05/09/2018
		Circuit breaker working	Animated video	IV year A & B	12/09/2018
17	S.VIJAYAKUMAR	working of counters and shift registers	animation through software	II A and B	18/09/2018
18	S.SUBASH CHANDRA BHARATHI	Working animation of synchronous machine	Animated videos	IV year A & B	18/7/2018,
		Working animation of stepper motor	Animated videos	IV year A & B	22/08/2018
		Working animation of switched reluctance motor	Animated videos	IV year A & B	06/09/2018
19	RAHUL	Three phase induction motor - working principle video	Animated videos	III year A	20/09/2018, 21/09/2018
		single phase induction motor - Construction & Working video	Animated videos	III year A	22/09/2018

Academic Year: 2017-18
Pedagogical Initiatives for Effective Teaching
Odd Semester

S.no	Name of the Faculty	Topic	Methodology used	Target Audiences	Date
1.	B.Ponkarthika	Fabrication of IC Technology	Animated videos	II B	03.07.2017
		Characteristics & Applications of Op Amp.	Quiz	II B	09.08.2017
		555-Timer	Online Based simulation Study	II B	18.08.2017
2.	M.Devabrinda	Dielectric breakdown	Quiz	IV A&B	15.07.2017
		Lightning Surges	Quiz	IV A&B	10.08.2017
		AC and DC Voltage Generation and Measurements	Quiz	IV A&B	15.09.2017
3.	J Lydia	Electric Field and magnetic field	Quiz	II A&B	02.08.2017

		Coordinate Systems	Chart	II A&B	11.09.2017
4.	G.Vignesh	Architecture of 8085	Animation	III B	03.07.2017
5.	K.V.Thilagar	MOSFET operation	Animation	III B	17.07.2017
6.	Dr.R.Karpagam	Various operation of Inverters	Power Point Presentation	III A	15.07.2017
7.	P.Puspakarthick	BLDC and Synchronous Motor	Demo	IV A	07.08.2017 11.09.2017
8.	Dr.K.Mala	Z Bus Formulation	Chart	III A	17.07.2017
		Z Bus Formulation	Chart	III B	19.07.2017
9.	D.Chandrakala	Code Converter	Self-Learning Class	II A&B	02.08.2017
		Half and Full adders	Simulation	II A&B	05.10.2017
10.	M.Padmapriya	Fabrication of IC's	Animated Videos	II A	20.07.2017
11.	Indhusailaja	Various interfaces with 8085	Flashcard	III A	17.07.2017
		Block diagram of 8085	Chart, Video	III A	19.07.2017

Even Semester

S.no	Name of the Faculty	Topic	Methodology used	Target Audiences	Date
1.	Keerthana R	Standing Waves	Demo	III A	28.02.2018
2.	Vignesh G	Standing Waves	Demo	III A	09.03.2018
3.	B.Ponkarthika	Indicating Instruments	Model Based Teaching	I Civil B	01.02.2018
		DC Generator, Motor, Transformer	Animated video and Model	I Civil B	07.02.2018
		Rectifier	Working model	I Civil B	24.02.2018
4.	M.Devabrinda	Illumination	Quiz	IV A&B	22.12.2017
		Electric Traction	Quiz	IV A&B	22.01.2018
		Welding	Quiz	IV A&B	23.02.2018
5.	K.V.Thilagar	Slip Power Recovery Scheme	Model Based	III B	16.02.2018
6.	J.Lydia	DC Motor	Chart	I IT A&B	06.02.2018
		Induction Motor	Videos	I IT A&B	09.03.2018
7.	P.Puspakarthick	DC Machines	Model	I CSE A	06.02.2018
8.	P.Marishkumar	DC Generator, Model, Transfomer	Animated Videos	I Mech B	09.03.2018
		Solar, wind, tidal Power Plant	Animated Videos	IV B	28.02.2018
9.	S.P.BabyShynela	Circuit Theorem	Chart	I Mech A&C	19.02.2018
		DC Generator	Animated Video	I Mech A&C	12.03.2018

10.	Dr.K.Mala	Automatic load frequency Controller	Model	III A	08.01.2018
		Automatic load frequency Controller	Model	III B	03.01.2018
11.	D.Chandrakala	Transformer and DC Machines	Quiz	II A&B	27.01.2018
		Transformer and DC Machines	Demonstration class	II A & B	04.01.2018 20.02.2018
		Braking of Motor	Model	II A & B	12.03.2018 13.03.2018
12.	Indhusailaja	Modelling of ELDC	Model	III A&B	09.03.2018
		Prototype and spild model	Chart	III A & B	28.02.2018
13.	M.Padmapriya	Model of transmission systems	Model	II A&B	18.02.2018
14.	Vijeesh V	Electrical Engineering materials	Mind Mapping	III B	18.12.2017
		Transformer Core design	Flashcard	III B	12.02.2018

Academic Year: 2016-17
Pedagogical Initiatives for Effective Teaching
Odd Semester

Sl.No.	Subject Code/ Name of the Subject	Pedagogical Initiatives Adopted	Content	Outcome
1.	EE6301/Digital Logic Circuits	1. Animation Videos	1. Introduction to Counters	Students were able to understand the concept of counters
2.	EE6302/Electromagnetic Theory	1. Flash card	1. Coordinate systems	Clear idea about the Coordinate system were given
3.	EC6202/Electronic Devices and Circuits	1. Animation Videos	1. PN junction Diodes	Working of PN junction Diode was clearly understood by the students
4.	EE6303/Linear Integrated Circuits and Applications	1. Animated videos 2. Technical quiz	1. IC Fabrication Steps 2. Application of Operational Amplifier	Animation provides the clear picture of fabrication of IC
5.	EE6501/Power System Analysis	1. Chart based teaching	1. Building algorithm for Z Bus	Step by step procedure of bus building algorithm to calculate ZBus was clearly understood by the students
6.	EE6502/Microprocessors and	1. Mind mapping	1. Microprocessor 8085 Overview	Clear overview of Microprocessor

	Microcontrollers			8085 was given
7.	ME6701/Power Plant Engineering	1. Animation Videos	1. Thermal Power Plant 2. Nuclear Power Plant	Process involved in the thermal and nuclear power plant were clearly known to the students
8.	EE6503/Power Electronics	1. NPTEL	1. Power Electronics Devices	Overview of all power electronic devices were taught clearly
9.	EE6504/Electrical Machines - II	1. Flash Card 2. Mind Mapping 3. EDUSAT	1. Three Phase Induction Motor Construction 2. Single Phase Induction Motor 3. Construction of Synchronous Generator	Construction of Synchronous generator and three phase induction motor were taught clearly
10.	IC6501/Control Systems	1. Flashcard	1. Construction of Bode Plot	Procedure for drawing Bode plot was clearly taught
11.	EE6701/High Voltage Engineering	1. Mind mapping	1. Lightning phenomenon	Lightning phenomenon was explained in a clear way
12.	EE6702/Protection and Switchgear	1. Animation Videos	1. Working of Relay	Working of Relay operation was taught in a better which helps them in doing mini projects
13.	EE6703/Special Electrical Machines	1. Chart	1. Overview of Special Electrical Machines	All special electrical machines were taught clearly
14.	EI6704/Biomedical Instrumentation	1. Animated Videos	1. Cardio vascular system	Animation on cardio vascular system gave a better idea about human physiology
15.	GE6081/Fundamentals of Nanoscience	1. Mind mapping	1. Nanostructure materials	Types of Nano structural materials were understood by the students

Even Semester

Sl.No.	Subject Code/ Name of the Subject	Pedagogical Initiatives Adopted	Content	Outcome
1.	EE6201 Circuit Theory	1. Technical Quiz	1. Application of electrical theorems	Students were able to know day to day life application of all circuit theorems
2.	EE6401 Electrical Machines - I	1. NPTEL	1. Magnetic circuits	NPTEL Video gave a clear idea about magnetic circuits
3.	CS6456 Object Oriented Programming	1. Brainstorming	1. Constructors and Destructors	This session improved the thinking ability of the students on constructors and destructors
4.	EE6402 Transmission and Distribution	1. Z to A Approach	1. Derivation of Cable parameters	Cable parameters derivation was understood clearly by the students in step by step manner
5.	EE6403 Discrete Time Systems and Signal Processing	1. Animation video 2. Simulation	1. Sampling theorem 2. Filter design	This gave a clear picture about sampling theorem and design of filters
6.	EE6404 Measurements and Instrumentation	1. Model based teaching	1. Moving Coil and Moving Iron meters	Students were able to understand the inner parts of ammeter and voltmeters
7.	EC6651 Communication Engineering	1. Flashcard	1. Modulation Techniques	Clear picture of modulation techniques was given to the students

8.	EE6602 Embedded Systems	1. Technical Quiz	1. Recent Embedded processors and Control	Students were able to know about the recent trends in embedded processor and control
9.	EE6603 Power System Operation and Control	1. Simulation	1. Load frequency control using MATLAB simulink	Load frequency control of speed governing mechanism was taught through a simulated power system problem
10.	EE6604 Design of Electrical Machines	1. Real Time Videos 2. Model based teaching	1. Methods of transformer cooling 2. DC shunt motor	Students got the knowledge about the cooling mechanism in transformers
11.	EE6002 Power System Transients	1. Simulation 2. Animation Videos	1. Simulation studies using PSCAD 2. Formation of Lightning	Simulation studies helps the students to do their final year projects in power system field
12.	EE6801 Electric Energy Generation, Utilization and Conservation	1. Model Based Teaching	1. Solar PV Generation	Generation of power through solar had become familiar with the students which help them to do their projects in Solar power generation
13.	EE6009 Power Electronics for Renewable Energy Systems	1. Animation Videos	1. Solar Power Plant 2. Wind Power Plant	Process involved in the solar and wind power plant were clearly known to the students
14.	GE6075 Professional Ethics in Engineering	1. Power Point presentation	1. Case study on Chernobyl crisis	Students were able to know how to deal with a risk situation in an industry

Academic Year: 2015-16
Pedagogical Initiatives for Effective Teaching

Odd Semester

Sl.No.	Subject Code/ Name of the Subject	Pedagogical Initiatives Adopted	Content	Outcome
16.	EE6301/Digital Logic Circuits	1. NPTEL	1. Design of synchronous sequential Circuits	Students were able to do mini projects based on the counters
17.	EE6302/Electromagnetic Theory	1. Technical Quiz	1. Electric and Magnetic field	Comparative study of both

				electric and magnetic field was understood by the students
18.	EC6202/Electronic Devices and Circuits	1. Animation Videos	1. PN Junction diode	A clear picture of working of PN junction diode was given
19.	EE6303/Linear Integrated Circuits and Applications	1. Animated videos 3. Technical quiz	1. IC Fabrication Steps 2. Application of Operational Amplifier	Step by step procedure of IC fabrication and Operational amplifier was thoroughly known by the students
20.	EE6501/Power System Analysis	1. NPTEL Videos	1. Load flow Analysis using Guass Siedal Method	Load flow analysis algorithm was clearly understood which helps the students to solve power flow analysis problems
21.	EE6502/Microprocessors and Microcontrollers	1. NPTEL Video	1. Peripheral Interfacing with Microprocessor 8085	Clear picture of peripheral inter facing was given which improves their programming skills
22.	EE6504/Electrical Machines - II	1. Flash Card 2. Mind Mapping	1. Three Phase Induction Motor Construction 2. Single Phase Induction Motor	Construction of AC machines were known which helps them while studying the course Design of Electrical Machines
23.	IC6501/Control Systems	1. Flashcard	1. Construction of Root locus	Step by step procedure for drawing root locus was clearly known by the students
24.	EE6701/High Voltage Engineering	1. Flashcard	1. Generation of High voltage	Various high voltage generation techniques were studied which helps them in doing projects on High Voltage testing.
25.	EE6703/Special Electrical Machines	1. Model based teaching	1. Synchronous reluctance Motor	Cut section of synchronous reluctance motor gave a clear view of

				special machines
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Even Semester

Sl.No.	Subject Code/ Name of the Subject	Pedagogical Initiatives Adopted	Content	Outcome
15.	EE6402 Transmission and Distribution	<ol style="list-style-type: none"> 1. Model based teaching 2. Model based Teaching 	<ol style="list-style-type: none"> 1. Structure of Power System 2. Types of cables 	Cut section of cables gave a clear idea about the layers of cables
16.	EE6603 Power System Operation and Control	<ol style="list-style-type: none"> 1. Technical quiz 	<ol style="list-style-type: none"> 1. Voltage control methods 	Various voltage control methods and its applications were clearly understood by the students
17.	EE6801 Electric Energy Generation,	<ol style="list-style-type: none"> 1. Mind Mapping 	<ol style="list-style-type: none"> 1. Power Tariff 	Structure of power tariff

	Utilization and Conservation		2. Power Generation Plants	in the real time system was known by the students
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