2013-2014

ELECTRICAL & ELECTRONICS

Odd Semester

S3 EEE (2013 Batch)- 2008 Scheme

Sl no	Course code	Subject name	Staff handled
1	08.301	Engineering Mathematics II	
2	08.302	Humanities	**Prof Rajan**
3	08.303	Hydraulic Machines and Heat Engines	**Mr. Krishnadas**
4	08.304	Network Analysis and Synthesis	**Ms. Nivea**
5	08.305	Solid State Devices and Circuits	
6	08.306	Electrical Machines I	
7	08.307	Hydraulic Machines and Heat Engines Lab	
8	08.308	Electrical and Electronic Workshops	

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

08.301: ENGINEERING MATHEMATICS II COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	**This course provides students a basic understanding of vector calculus, Fourier series and Fourier transforms which are very useful in**	**At the end of the course, the students will have the basic concepts of vector analysis.**

Sl. No.		
	many engineering fields.	
2	Partial differential equations and its applications are also introduced as a part of this course.	At the end of the course, the students will have the basic concepts of Fourier series, Fourier transforms which they can use later to solve problems related to engineering fields.
3		At the end of the course, the students will have the basic concepts of Partial differential equations
4		
5		
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COURSE OBJECTIVES AND COURSE OUTCOMES FOR

08.302: HUMANITIES COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	To explore the way in which economic forces operate in the Indian Economy.	The students will be acquainted with its basic concepts, terminology, principles and assumptions of Economics.
2	The subject will cover analysis of sectors, dimensions of growth, investment, inflation and the role of government will also be examined.	It will help students for optimum or best use of resources of the country
3	The principle aim of this subject is to provide students with some basic techniques of economic analysis to understand the economic processes	It helps students to use the understanding of Economics of daily life

	with particular reference to India.	
4	To give basic concepts of book keeping and accounting	The students will get acquainted with the basics of book keeping and accounting
5		
6		

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

08. 303 HYDRAULIC MACHINES AND HEAT ENGINES

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	The students completing this course are expected to understand the importance and theory of Fluid mechanics.	Students are able to perform the verification Bernoulli's theorem
2	Finding head loss due to friction in pipes and verifying Bernoulli's principle.	Finding head loss due to friction in pipes based on Dracy weisbach equation.
3	Develop the concept of combustion in Compression ignition engine, Pressure Vs crank angle diagrams, Knocking, Detonation	Gain the knowledge about performance calculations in I.C.Engine
4	Develop an idea about performance calculations in I.C.Engine.	This study is also used for the estimation of efficiency and performance of the turbine with the study of characteristics curves.
5		Finding co-efficient of discharge for the venturimeter and orifice meter.

6		They are able to analyses the performance characteristics curves of different turbines and centrifugal pump.

COURSE OBJECTIVES AND COURSE OUTCOME FOR

08.804 NETWORK ANALYSIS AND SYNTHESIS

Sl. No.	Course Objectives	Course Outcomes
		On completion of course the students will be able to:
1	Apply the fundamental concepts in solving and analyzing different Electrical networks	Familiar with ac and dc circuits solving.
2	Select appropriate and relevant technique for solving the Electrical network in different condition	Ready with the most important concepts like mesh and nodal analysis.
3	Apply mathematics in analyzing and synthesizing the networks in time and frequency domain	Articulate in working of various components of a circuit
4	Estimate the performance of a particular network from its analysis.	Solve Circuits using Tree, Node, Branch ,Cut set ,Tie Set Methods.
5		Measure Three phase voltages and current, active, reactive powers.
6		Convert Three phase Star to Three phase Delta circuits and Vice-Versa.

COURSE OBJECTIVE AND COURSE OUTCOME FOR

08.305 SOLID STATE DEVICES AND CIRCUITS (E)

Sl NO:	COURSE OBJECTIVE	COURSE OUTCOMES
1	To impart depth knowledge in electronic semiconductor devices and circuits giving importance to the various aspects of design and analysis. Depth knowledge about the structure, working of JFET and MOSFET	Able to bias transistor , attain bias stability Able to analyze amplifier circuits. Able to analyze the frequency response of amplifiers.
2	Understand their capabilities and limitations and make decisions regarding their best utilization in a specific situation. Study large signal amplifiers and feedback amplifiers and oscillator circuits	Acquire reasonable proficiency in the analysis and design of power amplifiers and feedback amplifiers
3	To provide a sound understanding of the fundamentals of operational amplifier circuits. To provide a thorough understanding of the operational amplifier circuits and their functions	Able to analyze differential amplifiers and study the applications of opamp. Able to design opamp circuits like inverting and noninverting amplifier circuits- Summing and difference amplifiers, Differentiator and Integrator circuits.

COURSE OBJECTIVES AND COURSE OUTCOME FOR

08.806 ELECTRICAL MACHINES -I

		Course Outcomes

Sl. No.	Course Objectives	On completion of course the students will be able to:
1	To learn the characteristics of dc machines and to learn how it can be employed for various applications.	The ability describe the principle of operation of dc motor and select appropriate motor types for different applications
2	To get an overview of some of the dc machines and transformers and industrial applications	The skill to analyze the response of any electrical machine.
3	To give exposure to the students about the concepts of direct current machines and transformers	The students will be able to explain how dc machines and transformers
4	Describe the constructional details, principle of operation and performance

Analysis of dc machines and transformers. | The skill to analyze the performance of different types of dc motors |
| 5 | | The ability to troubleshoot the operation of an electrical machine. |
| 6 | | Familiarize with the principle of operation and performance of three phase transformers |

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

08. 307 HYDRAULIC MACHINES AND HEAT ENGINES LAB

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	To introduce students, the	Knowledge on basic concepts of fluid properties.

	fundamental concepts related to the mechanics of fluids.	
2	To acquire knowledge on hydraulic machines such as pumps and turbines	Analyze flow problems associated with statics, kinematics and dynamics of fluids.
3	To apply acquired knowledge on real life problems.	Calculate forces and work done by a jet on fixed or moving plate and curved plates.
4	To impart knowledge of fluid flow problems and mechanical power generating devices which have applications in electrical engineering.	Know the working of turbines and select the type of turbine for an application.
5		Design and analyze fluid devices such as water turbines and pumps.
6		Know the working of turbines and select the type of turbine for an application.

COURSE OBJECTIVES AND COURSE OUTCOME FOR

08.308 ELECTRICAL & ELECTRONICS WORKSHOP

Sl. No.	Course Objectives	Course Outcomes
		On completion of course the students will be able to:
1	Study and practice on electric circuits	Draw and practice simple house wiring and testing methods
2	To develop skills leading to achievement to connect basic electrical instruments and devices	Develop practical workshop skills in the students.
3	To develop knowledge of electrical wiring and electronic circuits.	Grasp the applications of workshop equipment, wiring accessories etc

4	Various technical facilities used by electricians, wiring regulations, types of cables and electric accessories including switches, lamps, sockets etc.	Physical realization of the range of discrete and integrated semiconductor devices
5		Knowledge of protective devices in electric circuits like fuse, ELCB, MCB etc.

S1S2 EEE (2013 Batch)- 2013 Scheme

Sl no	Course code	Subject name	Staff handled
1	13.101	Engineering Mathematics	Ms.Prabhiya
2	13.102	Engineering Physics	Ms.Sreeti Gangadharan
3	13.103	Engineering Chemistry	Ms.Renju R.
4	13.104	Engineering Graphics	Mr.K.S.Sasi
5	13.105	Engineering Mechanics	Mr.Shankar Ram
6	13.106	Basic Civil Engineering	Ms.Lekshmi
7	13.107	Basic Mechanical Engineering	Mr.John P. George
8	13.108	Basic Communication and Information Engineering	Ms.Anuja
9	13.109	Fundamentals of Electrical Engineering	Mr.Praveen
10	13.110	Mechanical Workshop	Mr.V.K.Soman
11	13.111	Electrical and Electronics Engineering Workshop	Ms. Nivea

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.101: ENGINEERING MATHEMATICS I COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	This course provides students an insight into the various applications of differentiation, partial differentiation techniques	At the end of the course, the students will be familiar with various concepts of calculus which are essential for engineering.
2	The methods for solving differential equations and the concept of linear algebra are also introduced as a part of this course.	They'll also become acquainted with the basic ideas of Laplace transforms and linear algebra
3	This course provides students an insight into the various applications of multiple integrals	
4	This course provides students an insight into the various applications of Laplace transforms.	

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.102 ENGINEERING PHYSICS

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	To understand how induced electric and magnetic fields lead to electromagnetic waves and to calculate the	On completion of the course the student shall be able to: - formulate potential problems within electrostatics, magnetostatics and

		intensity of light transmitted through a series of polarizing filters.	stationary current distributions in linear, isotropic media,
			Solve such problems in simple geometries using separation of variables and the method of images
			Interpret the terms in the theorem physically - describe and make calculations of plane electromagnetic waves in homogeneous media, including <mark>reflexion of such waves in plane boundaries between homogeneous media</mark>
2	Connect the historical development of quantum mechanics with previous knowledge and learn the basic properties of quantum world.		Show an understanding of wave mechanics in three dimensions
			Describe the structure of the hydrogen atom and show an understanding of quantisation of angular momentum
			Apply techniques such as Fourier methods and ladder operators for selected problems in quantum mechanics;
3	Using Einstein's two postulates, derive space and time transformations between inertial reference frames (derived transformations are same as the Lorentz transformations)ʊThe principle of relativity. (Same principle as in Newtonian physics) The constancy of the speed of light. (Breaks from Newtonian physics)		The more quantitative approach is designed for those students who desire the deepest understanding of the special theory of relativity (within the introductory context of this course).
			The primary assignments for students who take this approach will be to watch lecture videos each week, take an assessment quiz for each video, take a weekly review quiz, and work on weekly problem sets.

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.103 ENGINEERING CHEMISTRY

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	To acquire knowledge about desalination of brackish water and treatment of municipal water.	1.develop innovative methods to produce soft water for industrial use and potable water at cheaper cost.
2	To gain the knowledge of conducting polymers, bio-degradable polymers and fibre reinforced plastics synthesis of nano materials	2.Substitute metals with conducting polymers and also produce cheaper biodegradable polymers to reduce environmental pollution. 3.Design economically and new methods of synthesis nano materials.
3	To learn significance of green chemistry and green synthesis .	4.Have the knowledge of converting solar energy into most needy electrical.
4	To understand mechanism of corrosion and preventive methods.	5.Apply their knowledge for protection of different metals from corrosion. 6.To prevent the monuments from getting corroded.
5.	To have an idea and knowledge about the Chemistry of Fuels Understanding of electrochemistry	7.types of fuels and their applications 8.recent trends in electrochemical energy storage devices.
6.	To study different types of spectroscopy	9.Learn how to use different spectroscopy techniques for analysis purpose of simple molecules.

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.104: ENGINEERING GRAPHICS COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	Enable the students to effectively communicate graphic representation as per standards	Able to prepare the orthographic projections of points and straight lines placed in various quadrants
2	To develop imagination skill in students and represent them effectively in a paper	Demonstrate the ability to draw orthographic projections of various solids.
	Learn to sketch and take field dimensions.	Ability to draw and interpret the sectioned views of solids
4	Learn to take data and transform it into graphic drawings.	Ability to draw the developments of various solids
5		Will be confident in preparing the isometric and perspective views of various solids.
6		Ability to draw the projections of intersection of solids and perform free hand sketching.

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.105: ENGINEERING MECHANICS COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:

1	To apply the principles of mechanics to practical engineering problems.	Understand the fundamental concepts of mechanics.
2	To identify appropriate structural system for studying a given problem and isolate it from its environment.	Students would be able to apply and demonstrate the concepts of resultant and equilibrium of force system.
	To develop simple mathematical model for engineering problems and carry out static analysis.	Students would be able to determine the properties of planes and solids.
4	To develop simple mathematical model for engineering problems and carry out static analysis.	Understand the concepts of moment of inertia.
5		Students would be able to apply fundamental concepts of dynamics to practical problems.
6		Understand the basic elements of vibration.

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.106: BASIC CIVIL ENGINEERING COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	This course imparts to the students, the fundamentals of civil engineering	At the end of the course, the students will be familiar with the different stages of building construction, various materials used for

	and creates awareness on various issues related to our living environment and their remedies	construction and environmental issues
2	To inculcate the essentials of civil engineering field to the students of all branches	The students will be able to illustrate the fundamental aspects of civil engineering
	To provide the students an illustration of the significance of the civil engineering profession satisfying societal needs.	The students should able to plan a building
4	To inculcate the essentials of civil engineering field to the students of all branches	Students will be able to explain about surveying for making horizontal and vertical measurements.
5	.	They will able to illustrate the uses of various building materials and construction of different components of a building.
6		The students will be able to illustrate the fundamental aspects of civil engineering

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.107: BASIC MECHANICAL ENGINEERING COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	Understanding the basic mechanical engg.	After the completion of this course, students will get necessary foundation for a complete understanding of energy and

		other related engineering systems.
2	Developing the skills to perform the analysis and design of mechanical systems	It also provides students a feel for how thermal sciences are applied in engineering practice.
3	Developing the skills to accurately articulate thermodynamic issues using proper thermodynamic concepts	Understand the laws of thermodynamics and their significance
4		Apply the principles of thermodynamic for the analysis of thermal systems
5		Select materials for applications as per their thermal properties.

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.108: BASIC COMMUNICATION AND INFORMATION ENGINEERING COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	To get basic idea about types, specification and common values of passive components.	Student can identify the active and passive electronic components.
2	To familiarise the working and characteristics of diodes transistors, MOSFET and some measuring instruments.	Student can setup simple circuits using diodes, transistors and other electronic components.
	To understand working of diodes in circuits and in rectifiers.	Student will get fundamental idea about basic communication and entertainment electronics.
4	To understand the concept of mobile networks.	Student will get fundamental idea about mobile operation.

5	To get basic idea about types, specification and common values of passive components.	Student will get fundamental idea about different electronic circuits.
6		Student can identify the active and passive electronic components.

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.109 FUNDAMENTALS OF ELECTRICAL ENGINEERING COURSE

SI NO	COURSE OBJECTIVES	SUBJECT LEARNING OUTCOMES OR COURSE OUTCOMES
		ON COMPLETION OF THE COURSE STUDENTS WILL BE THE ABLE TO:
1	Understand the basic concepts of ac and dc circuits	Predict the behaviour of electric circuits
2	Understand the behaviour of earthing and protective devices	Predict the behaviour of magnetic circuits
3	Understand the basic concepts of magnetic circuits	Design earthing system
4	Understanding the phenomenon of resonance	Design electrically resonating circuits
5		Apply Kirchhoff's law to daily electrical issues
6		Predict the behaviour of active and passive electrical components

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.110: MECHANICAL ENGINEERING WORKSHOP COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	The Engineering Workshop Practice for engineers is a training lab course spread over entire semester.	Student will be able to make various joints in the given object with the available work material.
2	The modules include training on different trades like Fitting, Carpentry, etc… which makes the students to learn how various joints are made using wood and other metal pieces.	Student will be able to know how much time a joint will take for the assessment of time
	Familiarization of basic manufacturing hand tools and equipment like files, hacksaw, spanner chisel hammers, etc.	Knowledge achieved to explain the various manufacturing process in the basic mechanical engineering workshop sections-smithy, carpentry, assembling, welding etc.
4	Familiarization of various measuring devises like vernier height gauge, vernier caliper, micrometer, steel rule etc.	Identify the various hand tools used in the basic mechanical engineering workshop sections-smithy, carpentry, assembling, welding etc.
5		Able to choose different measuring devises according to the work.
6		Skill achieved to construct models by using basic mechanical workshop sections like welding, moulding, smithy, carpentry etc.

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

13.111: ELECTRICAL & ELECTRONICS ENGINEERING WORKSHOP COURSE

Sl.	Course Objectives	Subject Learning Outcomes or

No.		Course Outcomes
		On completion of course the students will be able to:
1	To enable the student to have the practical skills for Electrical wiring and basic awareness of safety measures.	On successful completion of this course the student will have fundamental ideas about the electrical and electronic circuit, and will be able to apply safety practices to avoid accidents.
2	To impart fundamental knowledge in the use of electronic components to set up circuits by soldering and testing them.	Familiarity with supply arrangements and their limitations, knowledge of standard voltages and their tolerances, safety aspects of electrical systems and importance of protective measures in wiring systems.
3	The objective of this course is to familiarize the students with commonly used components, accessories and measuring equipment in Electrical installations.	Knowledge about the types of wires, cables and other accessories used in wiring. Creating awareness of energy conservation in electrical systems.
4	The course also provides hands on experience in setting up of simple wiring circuits	Students should be able to wire simple lighting circuits for domestic buildings, distinguish between light and power circuits.
5	This course gives the basic introduction of electronic hardware systems and provides hands-on training with familiarization, identification, testing, assembling, dismantling, fabrication and repairing such systems by making use of the various tools and instruments available in the Electronics Workshop	To measure electrical circuit parameters and current, voltage and power in a circuit.
6		Familiarity with backup power supply in domestic installation

Even Semester

S4 EEE (2013 Batch)- 2008 Scheme

Sl no	Course code	Subject name	Staff handled
1	08.401	Engineering Mathematics	**Sumi S**
2	08.402	Digital Electronics	**Anup Vasavan**
3	08.403	Engineering Electro-magnetics	**Preetha R**
4	08.404	Electrical measurement	**Saranya Devi**
5	08.405	Engineering Material science	**Smith P S**
6	08.406	Power System Engineering	**Niveas S**
7	08.407	Electronic Circuits Lab	**Anup**
8	08.408	Electrical Machines Lab I	**Nivea**

COURSE OBJECTIVES AND COURSE OUTCOME FOR

08.401: ENGINEERING MATHEMATICS III COURSE

Sl. No.	Course Objectives	Subject Learning Outcomes or Course Outcomes
		On completion of course the students will be able to:
1	**To introduce the basic notion in complex analysis such as Analytic Functions, Harmonic functions and their applications in fluid mechanics and differentiations and**	**After successful completion of this course, the students will be able to use numerical methods to solve problems related to engineering fields. This course helps students to master the basic concepts of complex analysis which they can use later**

	integration of complex functions, transformations and their applications in engineering fields.	in their career.
2	Numerical techniques for solving differential equations are also introduced as a part of this course.	
3		

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

08.403 ENGINEERING ELECTROMAGNETICS COURSE

SI NO	COURSE OBJECTIVES	SUBJECT LEARNING OUTCOMES OR COURSE OUTCOMES
		ON COMPLETION OF THE COURSE STUDENTS WILL BE THE ABLE TO:
1	Provide basic skills required to understand and develop applications involving electromagnetic fields	Apply vector calculus to static electromagnetic fields
2	Provide basic skills required to design applications involving electromagnetic fields	Analyse Maxwell's equations in various forms
3	To lay foundations of electromagnetism in modern communication	Apply Gauss' equation to diverse engineering problems
4	To explore scope of electromagnetism in fibre optics and electromagnetic structures	Examine phenomena of wave propagation in different media
5		Examine the effect of interference in microwave engineering
6		Analyse the nature of electromagnetic wave propagation in guided medium using microwave applications

COURSE OBJECTIVES AND COURSE OUTCOME FOR

08.404 ELECTRICAL MEASUREMENTS I

Sl. No.	Course Objectives	Course Outcomes
		On completion of course the students will be able to:
1	To develop understanding of various dimensions of electrical quantities and dimensional analysis.	Explain working and application of DC bridges.
2	Definition of accuracy, precision and others	Differentiate between moving iron and moving coil type instruments
3	Calibration of ammeters, voltmeters and watmeters using DC Potentiometers.	Measure energy and power using Watt meter and Energy Meter.
4	Maintain various types of test and measuring instruments.	Measurement of insulation resistance using meggar
5		Describe the working of TOD meter

COURSE OBJECTIVES AND COURSE OUTCOME FOR

08.405 ENGINEERING MATERIAL SCIENCE

Sl. No.	Course Objectives	Course Outcomes
		On completion of course the students will be able to:
1	An ability to apply knowledge of mathematics, science and engineering to materials issues	Discuss and communicate the management evolution and how it will affect future managers

2	**An ability to design and conduct experiments and critically analyze and interpret data**	**Observe and evaluate the influence of historical forces on the current practice of management.**
3	**An ability to work effectively in multidisciplinary teams, be conversant in languages of other fields, and provide leadership to such teams**	**Identify and evaluate social responsibility and ethical issues involved in business situations and logically articulate own position on such issues.**
4	**An ability to design a process and/or material system to achieve specific requirements within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability**	**Practice the process of management's four functions: planning**
5		**Evaluate leadership styles to anticipate the consequences of each leadership style.**
6		**Gather and analyze both qualitative and quantitative information to isolate issues and formulate best control methods.**

COURSE OBJECTIVES AND COURSE OUTCOME FOR

08.406 POWER SYSTEM ENGINEERING I

		Course Outcomes

Sl. No.	Course Objectives	On completion of course the students will be able to:
1	To understand different power generating stations and their working.	Discuss the various power generating methods.
2	To create awareness on the economical aspects of power generation.	Interpret the effect of economics on electric power generation.
3	To explain the modeling of transmission lines and their classification.	Discuss various components of transmission lines, their classification and modeling.
4	To expose to the mechanical and electrical characteristics of transmission lines.	Analyze the mechanical and electrical characteristics of transmission lines.
5	To understand high voltage dc transmission system and distribution systems.	Explain HVDC transmission and distribution system.
6		To select the appropriate distribution system for specific area.

COURSE OBJECTIVE AND COURSE OUTCOME FOR

08.407 ELECTRONIC CIRCUITS LAB

Sl NO:	COURSE OBJECTIVE	COURSE OUTCOMES
1	Design and construct simple electronic circuits to accomplish a specific function	Able to design rectifiers, clipping, clamping, amplifiers, etc…
2	Understand their capabilities and limitations and make decisions regarding their best utilization in a	Able to design and compare different oscillators and waveform generators

	specific situation.	
3	Students should have to acquire reasonable proficiency in the analysis and design of basic electronic circuits.	Able to analyze the frequency response of amplifiers and able to design voltage regulators
4	Introduction to SPICE and simulation of experiments	Able to design the circuit and generate circuit layout using SPICE

COURSE OBJECTIVES AND COURSE OUTCOMES FOR

08.408 ELECTRICAL MACHINES LAB I

SI NO	COURSE OBJECTIVES	SUBJECT LEARNING OUTCOMES OR COURSE OUTCOMES
		ON COMPLETION OF THE COURSE STUDENTS WILL BE THE ABLE TO:
1	Expose students to operation of DC generator	Analyse characteristics of DC generator
2	Expose students to operation of DC motor	Analyse characteristics of DC motor
3	Expose students to operation of single phase transformer	Analyse characteristics of single phase transformer

4	Expose students to operation of three phase transformer	Analyse characteristics of three phase transformer
5		Predetermine the efficiency of transformer
6		Predetermine the efficiency of dc machine