SAPTHAGIRI COLLEGE OF ENGINEERING

(Affiliated to VTU , Belagavi & Approved by AICTE, New Delhi)

#14/5, Chikkasandra, Hesaraghatta main road, Bangalore - 560057

DEPARTMENT OF CHEMISTRY

ACTION PLAN FOR COURSE OUTCOMES

Academic Year: 2015-16 **Scheme: 2015**

Subject: ENGINEERING CHEMISTRY **Code: 15CHE12**

Sl . No	CO	Description of CO	Target %	Attainment %	Attainment YES/NO	Action plan to reach target/Improvement
1	CO1	Electrochemical and concentration cells. Classical & modern batteries and fuel cells.	80	88	YES	Maintain the teaching and assessment methods. ICT tools will be used for explanation of sewage treatment and The set target can be raised to 90%.
2	CO2	Causes & effects of corrosion of metals and control of corrosion. Modification of surface properties of metals to develop resistance to corrosion, wear, tear, impact etc. by electroplating and electro less plating.	80	81	YES	
3	CO3	Production & consumption of energy for industrialization of country and living standards of people. Utilization of solar energy for different useful forms of energy.	80	88	YES	
4	CO4	Replacement of conventional materials by polymers for various applications.	80	83	YES	
5	CO5	Boiler troubles and applies sewage treatment and desalination of sea water, and over viewing of synthesis, properties and applications of nanomaterials.	80	79	YES	

Course coordinator/Faculty HOD

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACTION PLAN FOR COURSE OUTCOMES

Academic Year: 2016-17 **Scheme: 2015**

Subject: ANALOG ELECTRONIC CIRCUIT **Code: 15EE34**

Sl . No	CO	Description of CO	Target %	Attainment %	Attainment YES/NO	Action plan to reach target/Improvement
1	CO1	Understand THE Transistor characteristics to analyze & design Biasing circuits for Amplifiers, Oscillators & Switching Circuits.	60	78	YES	1.Maintain teaching and assessment methods. 2.Set the Higher target of 70%
2	CO2	Understand the behavior of Transistor circuits at LOW & HIGH Frequency regions and how the performance parameters of single stage & cascaded amplifiers get affected. Design the op-amp,adder,subtractor,differentiator, & integrator and test the performance.	60	82	YES	
3	CO3	Understand different types of Oscillators using Transistor & also to analyze & design the same.	60	85	YES	
4	CO4	Understand different types of Power Amplifiers using Transistors and to analyze & design the same.	60	84	YES	

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACTION PLAN FOR COURSE OUTCOMES

Academic Year: 2016-17 **Scheme: 2015**

Subject: ELECTROMAGNETIC FIELD THEORY **Code: 15EE45**

Sl . No	CO	Description of CO	Target %	Attainment %	Attainment YES/NO	Action plan to reach target/Improvement
1	CO1	Use different coordinate systems to explain the concept of gradient, divergence and curl of a vector. Assess time varying fields and propagation of waves in different media.	60	71	YES	1. Set the Higher target of 70% 2. More assignments will be given. 3. Extra problems will be solved from electric field. 4. ICT tools will be used to explain the concept of electric field.
2	CO2	Use Coulomb's Law and Gauss Law for the evaluation of electric fields produced by different charge configurations.	60	72	YES	
3	CO3	Calculate the energy and potential due to a system of charges.	60	67	YES	
4	CO4	Explain the behavior of electric field across a boundary between a conductor and dielectric and between two different dielectrics.	60	58	NO	
5	CO5	Explain the behavior of magnetic fields and magnetic materials.	60	67	YES	
6	CO6	Assess time varying fields and propagation of waves in different media	60	68	YES	

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACTION PLAN FOR COURSE OUTCOMES

Academic Year: 2017-18 **Scheme: 2015**

Subject: MICROCONTROLLER **Code: 15EE52**

Sl . No	CO	Description of CO	Target %	Attainment %	Attainment YES/NO	Action plan to reach target/Improvement
1	CO1	Discuss the history of the 8051 and features of other 8051 family members and the internal architecture of the 8051 and 8051 addressing modes.	70	82	YES	Maintain the teaching and assessment methods. ICT tools will be used for interface 8051 with real world devices topic explanation. The set target can be raised to 80%. More examples will be explained.
2	CO2	Explains the use of an 8051 assembler, the stack and the flag register, loop, jump, and call instructions.	70	76	YES	
3	CO3	Develop 8051C programs for time delay, I/O operations, I/O bit manipulation, logic and arithmetic operations, data conversion and data serialization.	70	81	YES	
4	CO4	Discuss the hardware connection of the 8051 chip, its timers, serial data communication and its interfacing of 8051to the RS232 and discuss in detail 8051 interrupts and writing interrupt handler programs.	70	78	YES	
5	CO5	Interface 8051 with real-world devices such as LCDs and keyboards, ADC, DAC chips and sensors and interface 8031/51 with external memories, 8255 chip to add ports and relays, opt isolators and motors.	70	67	NO	

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACTION PLAN FOR COURSE OUTCOMES

Academic Year: 2018-19 **Scheme: 2015**

Subject: ELECTRICAL MACHINE DESIGN **Code: 15EE64**

Sl . No	CO	Description of CO	Target %	Attainment %	Attainment YES/NO	Action plan to reach target/Improvement
1	CO1	CO1: JUDGE AND SELECT THE ENGINEERING MATERIALS FOR THE CONSTRUCTION OF ELECTRICAL MACHINES	80	96	YES	Maintain the teaching and assessment methods. ICT tools will be used for explanation of estimation of dimension topic The set target can be raised to 90%. Many numerical will be solved
2	CO2	CO2: DESCRIBE THE OUTPUT EQUATION OF DC MACHINES AND DERIVE THE RELATIONSHIP BETWEEN VARIOUS PARAMETERS AND ESTIMATE THE DIMENSIONS ARMATURE OF DC MACHINES.	80	86	YES	
3	CO3	CO3: ESTIMATE THE DIMENSIONS OF FIELD AND COMMUTATOR	80	79	NO	
4	CO4	CO4:DESCRIBE THE OUTPUT EQUATION OF TRANSFORMER AND DERIVE THE RELATIONSHIP BETWEEN VARIOUS PARAMETERS AND ESTIMATE THE MAIN DIMENSION OF TRANSFORMER	80	90	YES	
5	CO5	CO5:DESCRIBE THE OUTPUT EQUATION OF AC MACHINES AND DERIVE THE RELATIONSHIP BETWEEN VARIOUS PARAMETERS AND ESTIMATE THE DIMENSIONS ARMATURE OF AC MACHINES.(INDUCTION , SYNCHRONOUS)	80	90	YES	
6	CO6	CO6-DEFINE SCR ,EFFECT OF SCR AND THEN ESTIMATE THE AIR GAP LENGTH AND DESIGN THE FIELD OF SYNCHRONOUS MACHINES	80	81	YES	

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACTION PLAN FOR COURSE OUTCOMES

Academic Year: 2018-19 **Scheme: 2015**

Subject: POWER SYSTEM ANALYIS – 2 **Code: 15EE71**

Sl . No	CO	Description of CO	Target %	Attainment %	Attainment YES/NO	Action plan to reach target/Improvement
1	CO1	Formulate network matrices and models for solving load flow problems.	50	59	YES	Maintain the teaching and assessment methods. ICT tools will be used for power flow analysis explanation The set target can be raised to 60%.
2	CO2	Perform steady state power flow analysis of power systems using numerical iterative techniques and suggest a method to control voltage profile.	50	52	YES	
3	CO3	Show knowledge of optimal operation of generators on a bus bar, optimal unit commitment, reliability considerations and optimal generation scheduling.	50	58	YES	
4	CO4	Discuss optimal scheduling for hydro-thermal system, power system security and reliability.	50	88	YES	
5	CO5	Analyse short circuit faults in power system networks using bus impedance matrix.	50	59	YES	
6	CO6	Perform numerical solution of swing equation for multi-machine stability.	50	88	YES	

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACTION PLAN FOR COURSE OUTCOMES

Academic Year: 2018-19 **Scheme: 2015**

Subject: POWER SYSTEM OPERATION AND CONTROL **Code: 15EE81**

Sl . No	CO	Description of CO	Target %	Attainment %	Attainment YES/NO	Action plan to reach target/Improvement
1.	CO1	Describe various levels of controls in power systems, the vulnerability of the system, components, architecture and configuration of SCADA.	70	89	YES	Maintain the teaching and assessment methods The set target can be raised to 80%.
2.	CO2	Solve Unit Commitment Problems.	70	83	YES	
3.	CO3	Explain the issues of hydrothermal scheduling and solutions to hydro thermal problems.	70	71	YES	
4.	CO4	Explain basic generator control loops, functions of Automatic Generation Control and speed governors.	70	71	YES	
5.	CO5	Develop and analyse mathematical models of Automatic Load Frequency Control.	70	74	YES	
6.	CO6	Explain Automatic Generation Control in an interconnected power system.	70	72	YES	
7.	CO7	Explain voltage and reactive power control in an interconnected power system.	70	71	YES	
8.	CO8	Explain reliability, security, contingency analysis, state estimation and its issues in power systems.	70	90	YES	

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACTION PLAN FOR COURSE OUTCOMES

Academic Year: 2015-16 **Scheme: 2015**

Subject: BASIC ELECTRICAL ENGINEERING **Code: 15ELE25**

Sl . No	CO	Description of CO	Target %	Attainment %	Attainment YES/NO	Action plan to reach target/Improvement
1	CO1	Impart a basic knowledge of electrical quantities such as current, voltage, power, energy and frequency to understand the impact of technology in a global and societal context and provide working knowledge for the analysis of basic DC circuits and Select the type of DC generator / motor required for a particular application.	80	87	YES	Maintain the teaching and assessment methods. The set target can be raised to 90%.
2	CO2	Working knowledge for the analysis of basics of AC circuits used in electrical and electronic devices.	80	87	YES	
3	CO3	Practice Electrical Safety Rules & standards and to function on multi-disciplinary teams.	80	87	YES	
4	CO4	Highlight the importance of transformers in transmission and distribution of electric power and Select the type of AC generator / motor required for a particular application.	80	87	YES	

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