



MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

Approved by AICTE, Affiliated to Anna University
363, Arcot Road, Kodambakkam Chennai-24, Tamil Nadu
Email Id : principal@msec.edu.in
Website : www.msec.edu.in

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	(i) PO AND PSO INDIRECT ATTAINMENT	
	(ii) SAMPLES OF STUDENT EXIT SURVEY & ALUMINI, SURVEY	



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2.6.2 Attainment of Program outcomes and course outcomes are evaluated by the Institution

- The course outcomes are evaluated using Direct and Indirect assessment tools.
- The Direct assessment tools include internal assessment tests, Assignment/Slip tests, End semester examination.
- The Course survey, received from all the students for all the courses, are taken as indirect assessment tool.
- The course outcome attainment is used in the evaluation of direct attainment of Program outcome.
- The Student exit survey, Alumni Survey is used as indirect assessment tools to compute attainment of Program outcomes.
- The assessment tools and the procedure to evaluate Course outcomes and Program outcomes are done as follows.

Internal Assessment Test - 1	Internal Assessment Test - 2	Internal Assessment Test - 3
Portions Covered For The Exam		
(100% of unit 1)+ (100% of unit2)	(100% of unit 3)+ (100 % of unit 4)	(100% of unit 5)
Mark Allocation		
CO1-50% CO2-50%	CO3-50% CO4-50%	CO5-100%

CO1(50Marks)		CO2(50Marks)		CO3(50Marks)		CO4(50Marks)		CO5(50Marks)	
IAT1	Assignment/ Slip Test	IAT1	Assignment/ Slip Test	IAT2	Assignment/ Slip Test	IAT2	Assignment/ Slip Test	IAT3	Assignment/ Slip Test
30 Marks	20 Marks	30 Marks	20 Marks	30 Marks	20 Marks	30 Marks	20 Marks	30 Marks	20 Marks

COMPUTATION OF CO ATTAINMENT

Direct CO Attainment = 20% of IAT attainment + 10% of MCQ attainment +
70% of University attainment

Overall CO Attainment = 80% of Direct attainment + 20% of Indirect attainment.

COMPUTATION OF PO/PSO ATTAINMENT

Direct PO Attainment = (PO Average * CO Attainment) / Maximum level of attainment (3)

Indirect PO Attainment = 70% of Student Exit Survey + 30% of Alumni survey

Overall PO Attainment= 80% of Direct attainment + 20% of Indirect attainment.

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Record the attainment of Course Outcomes of all courses with respect to set attainment levels

- The set target value is fixed as a standard of 70 marks for all the theory and laboratory courses.
- Attainment Level 1 (Slight): 50% students scoring set attainment level in internal assessment test, multiple choice question test and university examination.
- Attainment Level 2 (Moderate) : 60% students scoring set attainment level in internal assessment test, multiple choice question test and university examination.
- Attainment Level 3 (Substantial): 70% students scoring set attainment level in internal assessment test, multiple choice question test and university examination.
- *Attainment is measured in terms of actual percentage of students getting target marks.

List of Assessment Tools / Processes

Theory Courses	Practical Courses
Direct Assessment Tools/Processes	Direct Assessment tools/Processes
Internal Assessment test / unit test	Experiments Evaluation Model Examination
Assignment / Slip test	Design & Fabrication Project/Project Work
Multiple Choice Question Test	Project Reviews
End semester examination	End semester Viva Voce Examination
Indirect Assessment Tools/Processes	Indirect Assessment Tools/Processes
Course Outcome Survey	Course Outcome Survey
Indirect Assessment Tools/Processes for PO, PSO Attainment	
Student Exit Survey	
Alumni Survey	
Stake holders Survey	

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Program Outcomes

- PO1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2. Problem analysis:** Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- PO6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Program Specific Outcomes

- **PSO1:** Demonstrate principles of basic electronic circuits, digital electronics, microprocessor and signal processing.
- **PSO2:** Design systems for applications in the areas of communication, networking and embedded systems.
- **PSO3:** Design low cost quality, energy efficient and eco-friendly products.

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CO-PO, PSO MAPPING
R-2013

Year / Semester: 1 Yr / I Sem
Course Name: Technical English I

Course Code :C101

Course Outcomes

At the end of the course, the student will be able to

C101.1	Speak clearly, confidently, comprehensibly, and communicate with one or many listeners using appropriate communicative strategies
C101.2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topic.
C101.3	Read different genres of texts adopting various reading strategies
C101.4	Listen/view and comprehend different spoken discourses/excerpts in different accents
C101.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.


CO-PO Mapping


CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101.1	-	-	-	-	-	-	-	-	3	3	-	3
C101.2	-	-	-	-	-	-	-	-	2	3	3	-
C101.3	-	-	-	2	-	-	-	-	1	1	-	-
C101.4	-	-	-	1	-	-	2	-	2	3	-	2
C101.5	-	2	-	-	-	-	-	-	2	3	-	3
C101	-	2	-	1.5	-	-	2	-	2	2.6	3	2.7

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C101.1	2	2	-
C101.2	2	2	-
C101.3	2	2	-
C101.4	1	1	-
C101.5	3	3	-
C101	2	2	-


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Year / Semester: I Yr / I Sem
Course Name: Mathematics-I

Course Code :C102

Course Outcomes

At the end of the course, the student will be able to


C102.1	find eigenvalues,eigenvectors,canonical form and inverse of a matrix
C102.2	acquire the knowledge of infinite and finite series and their convergence.
C102.3	evaluate radius of curvature, evolute and envelope of given curves using differential calculus.
C102.4	examine the concepts of functions of several variables and to find extremum value of a given function.
C102.5	develop an ability to trace the curve and find area . volume using multiple integrals


CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C102.1	3	3	3	-	-	-	-	-	-	-	-	-
C102.2	3	2	2	-	-	-	-	-	-	-	-	-
C102.3	3	3	3	-	-	-	-	-	-	-	-	-
C102.4	3	2	2	-	-	-	-	-	-	-	-	-
C102.5	3	3	3	-	-	-	-	-	-	-	-	-
C102.1	3	2.6	2.6	-	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C102.1	1	-	-
C102.2	1	-	-
C102.3	1	-	-
C102.4	1	-	-
C102.5	1	-	-
C102	1	-	-


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Year / Semester: I Yr / I Sem
Course Name: Engineering Physics I

Course Code :C103

Course Outcomes

At the end of the course, the student will be able to

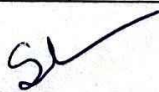
C103.1	understand the basics of crystals and their properties and applications in fields of engineering
C103.2	Gain knowledge on the basics of physics related to properties of matter, and they will apply these fundamental principles to solve practical problems related to materials used for engineering applications.
C103.3	understand the concept of sound production and application in the field of construction
C103.4	acquire knowledge about dual nature of matter and its applications
C103.5	understand the concepts behind the production of laser and optical fibres, their uses in communications.

CO-PO Mapping


CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C103.1	2	1	-	-	-	-	-	-	-	-	-	-
C103.2	2	1	-	-	-	-	-	-	-	-	-	-
C103.3	2	1	-	-	-	-	-	-	-	-	-	-
C103.4	2	1	-	-	-	-	-	-	-	-	-	-
C103.5	2	1	-	-	-	-	-	-	-	-	-	-
C103	2	1	-	-	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C103.1	1	-	-
C103.2	1	-	-
C103.3	1	-	-
C103.4	1	-	-
C103.5	1	-	-
C103	1	-	-


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CO-PO, PSO MAPPING
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Year / Semester: I Yr /I Sem
Course Name: Engineering Chemistry-I

Course Code :C104

Course Outcomes

At the end of the course, the student will be able to

C104.1	understand the Principles of polymer chemistry and engineering applications of polymers
C104.2	understand the basic concepts of , thermodynamics and their importance
C104.3	know the basic concepts of Analytical techniques and their importance
C104.4	understand knowledge in Industrial importance of Phase rule and alloys.
C104.5	know the concept of nanomaterials and its applications.


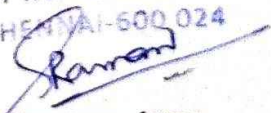
CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104.1	3	3	3	-	-	-	-	-	-	-	-	-
C104.2	2	2	2	-	-	-	-	-	-	-	-	-
C104.3	2	2	3	-	-	-	-	-	-	-	-	-
C104.4	2	2	3	-	-	-	-	-	-	-	-	-
C104.5	-	-	1	-	-	-	-	-	-	-	-	-
C104	2.25	2.3	2.4	-	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C104.1	-	-	-
C104.2	-	-	-
C104.3	-	-	-
C104.4	-	-	-
C104.5	-	-	-
C104	-	-	-


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Year / Semester: I Yr / I Sem
Course Name: Computer Programming (GE6151)

Course Code : C105

Course Outcomes

At the end of the course, the student will be able to

C105.1	explain the basic organization of computers, the number systems and write the pseudo code for algorithms and flow chart.
C105.2	develop C programming fundamentals, looping statements and solve problems
C105.3	develop C programs for arrays and strings
C105.4	use functions with pass by value and reference, pointers in programs
C105.5	develop codings in C for structures and unions with storage classes and preprocessor

CO-PO Mapping


CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C105.1	2	3	-	-	1	-	-	-	-	-	-	-
C105.2	2	3	-	-	1	-	-	-	-	-	-	-
C105.3	2	3	-	-	1	-	-	-	-	-	-	-
C105.4	2	3	-	-	-	-	-	-	-	-	-	-
C105.5	2	3	-	-	1	-	-	-	-	-	-	-
C105	2	3	-	-	1	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C105.1	2	-	-
C105.2	2	-	-
C105.3	2	-	-
C105.4	2	-	-
C105.5	2	-	-
C105	2	-	-


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Year / Semester: I Yr / I Sem

Course Code :C106

Course Name: Engineering Graphics GE6152

Course Outcomes

At the end of the course, the student will be able to

C106.1	familiarize with the fundamentals and standards of Engineering drawings and Perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.2	draw orthographic projections of lines and plane surfaces.
C106.3	draw projections of solids
C106.4	draw projection of sectioned solids and development of surfaces.
C106.5	visualize and project isometric and perspective sections of simple solids.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C106.1	2	1	-	-	-	-	-	-	-	3	-	-
C106.2	2	1	-	-	-	-	-	-	-	3	-	-
C106.3	2	1	-	-	-	-	-	-	-	3	-	-
C106.4	2	1	-	-	-	-	-	-	-	3	-	-
C106.5	2	1	-	-	-	-	-	-	-	3	-	-
C106	2	1	-	-	-	-	-	-	-	3	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C106.1	-	-	-
C106.2	-	-	-
C106.3	-	-	-
C106.4	-	-	-
C106.5	-	-	-
C106	-	-	-

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R-2013

Year / Semester: I Yr / I Sem

Course Code :C107

Course Name: Computer Practices Laboratory (GE6161)

Course Outcomes

At the end of the course, the student will be able to

C107.1	develop C programs for simple applications making use of basic constructs, arrays function, recursion, pointers, structures and strings
C107.2	design applications using sequential and random access file processing
C107.3	develop C programs involving structures union.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C107.1	3	2	3	-	3	-	-	-	-	-	-	-
C107.2	3	1	3	-	2	-	-	-	-	-	-	-
C107.3	3	2	1	-	1	-	-	-	-	-	-	-
C107	3	1.7	2.33	-	2	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C107.1	2	-	-
C107.2	2	-	-
C107.3	2	-	-
C107	2	-	-

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CO-PO, PSO MAPPING
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Year / Semester: 1 Yr / I Sem

Course Code :C108

Course Name: Engineering Practices Laboratory (GE6162)

Course Outcomes

At the end of the course, the student will be able to

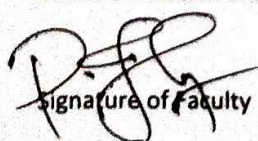
C108.1	study and practice on machine tools and their operations
C108.2	practice on carpentry tools, components and pipe connections including plumbing work
C108.3	demonstrate wiring for a simple residential house, identify the ratings of various appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	calculate the different Electrical quantities, measure the energy consumption using single phase energy meter, measure the resistance to earth of an electrical equipment.
C108.5	analyze the characteristics of basic electronic devices
C108.6	elaborate on the components, gates, soldering practices

CO-PO Mapping


CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C108.1	-	-	-	-	-	-	-	-	-	2	-	1
C108.2	-	-	-	-	-	-	-	-	-	2	-	1
C108.3	2	-	2	-	-	-	-	-	-	-	-	-
C108.4	2	-	2	-	-	-	-	-	-	-	-	-
C108.5	2	-	2	-	2	-	-	-	-	-	-	-
C108.6	2	-	2	-	2	-	-	-	-	2	-	1
C108	2	-	2	-	2	-	-	-	-	2	-	1

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C108.1	-	-	-
C108.2	-	-	-
C108.3	1	-	-
C108.4	1	-	-
C108.5	2	-	1
C108.6	2	-	1
C108	1.5	-	1


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CO-PO, PSO MAPPING
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Year / Semester: I Yr / I Sem

Course Code :C109

Course Name: Physics and Chemistry Laboratory – I(GE6163)

Course Outcomes

At the end of the course, the student will be able to

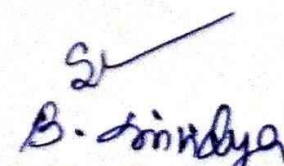
C109.1	apply physics principles of optics
C109.2	gain knowledge about thermal physics to evaluate engineering properties of materials.
C109.3	outfitted with hands-on knowledge in the quantitative chemical analysis of polymer and acid based related parameters.
C109.4	have basic idea about pH and conduct metric titration.


CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C109.1	3	1	1	2	-	2	3	-	3	1	-	-
C109.2	3	-	-	-	-	2	-	-	3	-	-	-
C109.3	3	2	1	-	3	2	3	-	3	2	-	-
C109.4	3	2	2	1	1	2	-	-	3	2	-	-
C109	3	1.7	1.33	1.5	2	2	3	-	3	1.7	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C109.1	-	-	-
C109.2	-	-	-
C109.3	-	-	-
C109.4	-	-	-
C109	-	-	-


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CO-PO, PSO MAPPING
R-2013

Year / Semester: I Yr /II Sem

Course Code :C110

Course Name: Technical English – II(HS6251)

Course Outcomes

At the end of the course, the student will be able to .

C110.1	Speak convincingly, express their opinions clearly, initiate a discussion, negotiate, argue using appropriate communicative strategies.
C110.2	Gain knowledge about thermal physics to evaluate engineering properties of materials. Write effectively and persuasively and produce different types of writing such as narration, description, exposition and argument as well as creative, critical, analytical and evaluative writing.
C110.3	Read different genres of texts, infer implied meanings and critically analyse and evaluate them for ideas as well as for method of presentation.
C110.4	Listen/view and comprehend different spoken excerpts critically and infer unspoken and implied meanings.
C110.5	Speak/write elaborately on the ideas and opinions relevant in different situations.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C110.1	-	-	-	-	-	-	-	-	3	3	-	3
C110.2	-	-	-	-	-	-	-	-	2	3	3	-
C110.3	-	-	-	2	-	-	-	-	1	1	-	-
C110.4	-	-	-	1	-	-	2	-	2	3	-	2
C110.5	-	2	-	-	-	-	-	-	2	3	-	3
C110	-	2	-	1.5	-	-	2	-	2	2.6	3	2.67

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C110.1	2	2	-
C110.2	2	2	-
C110.3	2	2	-
C110.4	1	1	-
C110.5	3	3	-
C110	2	2	-


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Year / Semester: I Yr /II Sem

Course Code :C111

Course Name: Mathematics – II(MA6251)

Course Outcomes

At the end of the course, the student will be able to


C111.1	estimate vector identities and interpret some integral theorems in a vector field.
C111.2	develop an ability to solve ordinary differential equations.
C111.3	examine the concepts of Laplace transformation and solve differential equations with given boundary conditions..
C111.4	identify and construct analytic function and application of conformal mapping.
C111.5	apply complex integration to evaluate contour integrals.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111.1	3	3	3	-	-	-	-	-	-	-	-	3
C111.2	3	3	3	-	-	-	-	-	-	-	3	-
C111.3	3	3	2	-	-	-	-	-	-	-	-	-
C111.4	3	3	3	-	-	-	-	-	-	-	-	2
C111.5	3	3	2	-	-	-	-	-	-	-	-	3
C111	3	3	2.6	-	-	-	-	-	-	-	3	2.67

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C111.1	1	-	-
C111.2	1	-	-
C111.3	1	-	-
C111.4	1	-	-
C111.5	1	-	-
C110	1	-	-


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Year / Semester: I Yr /II Sem
Course Name: Engineering Physics – II (PH6251)

Course Code :C112

Course Outcomes

At the end of the course, the student will be able to


C112.1	understand the conducting materials using wave mechanics
C112.2	understand theory behind semiconducting materials and their application in engineering field.
C112.3	understand the properties of magnetic and superconducting materials.
C112.4	understand the significance of dielectric and its application in the field of engineering.
C112.5	understand the upcoming engineering materials and their applications in engineering fields.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C112.1	2	1	-	-	-	-	-	-	-	-	-	-
C112.2	2	1	-	-	-	-	-	-	-	-	-	-
C112.3	2	1	-	-	-	-	-	-	-	-	-	-
C112.4	2	1	-	-	-	-	-	-	-	-	-	-
C112.5	2	1	-	-	-	-	-	-	-	-	-	-
C112	2	1	-	-	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C112.1	1	-	-
C112.2	1	-	-
C112.3	1	-	-
C112.4	1	-	-
C112.5	1	-	-
C112	1	-	-


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Year / Semester: I Yr /II Sem

Course Code :C113

Course Name: Engineering Chemistry – II (CY6251)

Course Outcomes

At the end of the course, the student will be able to

C113.1	understand water treatment techniques will facilitate better understanding of engineering processes and applications for further learning
C113.2	gain knowledge about with the principles electrochemistry, electrochemical cells, emf and applications of emf measurements.
C113.3	gain basic knowledge in Principles of corrosion control.
C113.4	understand fundamental concepts of Fuels and combustion.
C113.5	acquire knowledge in various energy sources and its applications

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C113.1	3	3	3	-	-	-	-	-	-	-	-	-
C113.2	2	2	2	-	-	-	-	-	-	-	-	-
C113.3	3	2	3	-	-	-	-	-	-	-	-	-
C113.4	3	2	3	-	-	-	-	-	-	-	-	-
C113.5	1	-	1	-	-	-	-	-	-	-	-	-
C113	2.4	2.3	2.4	-	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C113.1	-	-	-
C113.2	-	-	-
C113.3	-	-	-
C113.4	-	-	-
C113.5	-	-	-
C113	-	-	-

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R-2013

Year / Semester: I Yr /II Sem

Course Code :C114

Course Name: Electronic Devices (EC6201)

Course Outcomes

At the end of the course, the student will be able to

C114.1	understand the working of semiconductor diode and it's voltage and current characteristics.
C114.2	understand the basic operation of BJT amplifiers and their voltage and current characteristics
C114.3	understand the basic operation of different types of FET amplifiers and their voltage and current characteristics
C114.4	understand the basic operation of special semiconductor devices, their characteristics and applications.
C114.5	understand the basic principles of power devices and display devices , their characteristics and applications.


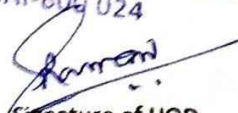
CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C114.1	3	2	1	-	-	-	-	-	-	-	-	-
C114.2	3	2	1	-	-	-	-	-	-	-	-	-
C114.3	3	2	1	-	-	-	-	-	-	-	-	-
C114.4	3	1	1	-	-	-	-	-	-	-	-	-
C114.5	3	1	1	-	-	-	-	-	-	-	-	-
C114	3	1.6	1	-	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C114.1	3	2	2
C114.2	3	2	2
C114.3	3	2	2
C114.4	3	1	1
C114.5	3	1	1
C114	3	1.6	1.6


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Year / Semester: I Yr /II Sem

Course Code :C115

Course Name: Circuit Theory (EE6201)

Course Outcomes

At the end of the course, the student will be able to

C115.1	apply basic Kirchoff laws to solve the various electrical parameters using mesh and nodal analysis.
C115.2	understand and apply various network theorems to solve the various electrical parameters for a given circuit.
C115.3	understand the concept of resonance inductance and coupled circuits.
C115.4	analyse the time response of circuits with passive components using laplace transformation.
C115.5	understand the concepts in three phase system in star and delta configuration.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C115.1	3	3	2	-	2	-	-	-	-	-	-	-
C115.2	3	1	2	1	1	-	-	-	-	-	-	-
C115.3	3	3	1	1	2	-	-	-	-	-	-	-
C115.4	1	1	2	1	3	-	-	-	-	-	-	-
C115.5	2	2	1	-	2	-	-	-	-	-	-	-
C115	2.4	2	1.6	1	2	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C115.1	1	-	-
C115.2	1	-	-
C115.3	1	-	-
C115.4	1	-	-
C115.5	2	-	-
C115	1.2	-	-


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R-2013

Year / Semester: I Yr /II Sem

Course Code :C116

Course Name: Physics & Chemistry Laboratory - II (GE6262)

Course Outcomes

At the end of the course, the student will be able to

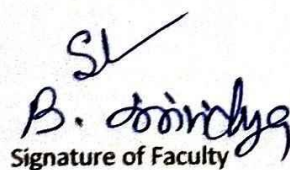
C116.1	test materials by using their knowledge of applied physics principles in optics and properties of matter.
C116.2	assess the behaviour of columns, beams and failures of materials.
C116.3	conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters.
C116.4	gain good knowledge about corrosion measurement

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C116.1	3	3	2	1	3	2	3	-	3	1	-	-
C116.2	3	1	2	-	-	2	-	-	3	1	-	-
C116.3	3	3	1	-	3	2	3	-	3	2	-	-
C116.4	3	1	2	1	-	2	-	-	3	2	-	-
C116	3	2	1.6	1	3	2	3	-	3	1.5	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C116.1	-	-	-
C116.2	-	-	-
C116.3	-	-	-
C116.4	-	-	-
C116	-	-	-


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Year / Semester: I Yr /II Sem

Course Code :C117

Course Name: Circuits and Devices Laboratory (EC6211)

Course Outcomes

At the end of the course, the student will be able to

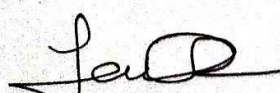
C117.1	analyze the characteristics of basic electronic devices
C117.2	design RL and RC circuits.
C117.3	verify Thevinin & Norton theorem KVL & KCL, and Super Position Theorems

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C117.1	3	2	2	-	-	-	-	-	2	-	-	-
C117.2	2	2	2	-	-	-	-	-	2	-	-	-
C117.3	2	2	2	-	-	-	-	-	2	-	-	-
C117	2.33	2	2	-	-	-	-	-	2	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C117.1	2	1	-
C117.2	2	1	-
C117.3	2	1	-
C117	2	1	-


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Year / Semester: II Yr /III Sem

Course Code :C201

Course Name: Transforms and Partial Differential Equations (MA6351)

Course Outcomes

At the end of the course, the student will be able to

C201.1	formulate and solve partial differential equations
C201.2	evaluate Fourier series of periodic functions.
C201.3	apply the method of separation of variables to find the solution of heat and wave equation.
C201.4	illustrate the Fourier transform techniques.
C201.5	examine Z transform techniques and solve difference equations.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C201.1	3	3	3	-	-	-	-	-	-	-	-	-
C201.2	3	3	3	-	-	-	-	-	-	-	-	-
C201.3	3	3	3	-	-	-	-	-	-	-	-	-
C201.4	3	3	3	-	-	-	-	-	-	-	-	-
C201.5	3	3	3	-	-	-	-	-	-	-	-	-
C201	3	3	3	-	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C201.1	1	-	-
C201.2	1	-	-
C201.3	1	-	-
C201.4	1	-	-
C201.5	1	-	-
C201	1	-	-


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Year / Semester: II Yr /III Sem

Course Code :C202

Course Name: Electrical Engineering and Instrumentation (EE6352)

Course Outcomes

At the end of the course, the student will be able to


C202.1	understand three phase supply and power measurement
C202.2	understand the concepts in electrical generators, motors and transformers
C202.3	understand the concepts in Induction machines and synchronous machines.
C202.4	understand the basic measurement and instrumentation based devices.
C202.5	understand the relevance of digital instruments in measurements.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202.1	3	2	2	2	-	-	-	-	-	-	-	-
C202.2	2	2	-	-	-	-	-	-	-	-	-	-
C202.3	2	2	-	-	-	-	-	-	-	-	-	-
C202.4	2	1	2	1	2	1	-	-	-	-	-	-
C202.5	1	2	1	1	3	2	-	-	-	-	-	-
C202	2	1.8	1.67	1.3	2.5	1.5	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C202.1	-	-	-
C202.2	-	-	-
C202.3	-	-	-
C202.4	1	-	-
C202.5	1	-	-
C202	1	-	-


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Year / Semester: II Yr /III Sem

Course Code : C203

Course Name: Object Oriented Programming and Data Structures (EC6301)

Course Outcomes

At the end of the course, the student will be able to

C203.1	understand about Object oriented programming
C203.2	explain the virtual functions polymorphism and file handling
C203.3	formulate the algorithm for stacks and queues
C203.4	categorize graph algorithms topological sort and minimum spanning tree.
C203.5	implement greedy algorithm and dynamic programming

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203.1	3	-	-	-	-	-	-	-	-	-	2	-
C203.2	3	-	2	-	-	-	-	-	-	-	-	-
C203.3	-	-	3	-	-	-	-	-	-	-	2	-
C203.4	-	-	3	-	-	-	-	-	-	-	-	-
C203.5	-	-	3	-	-	-	-	-	-	-	2	-
C203	3	-	2.75	-	-	-	-	-	-	-	2	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C203.1	-	1	-
C203.2	-	1	-
C203.3	-	1	-
C203.4	-	1	-
C203.5	-	1	-
C203	-	1	-

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Year / Semester: II Yr /III Sem
Course Name: Digital Electronics(EC6302)

Course Code :C204

Course Outcomes

At the end of the course, the student will be able to

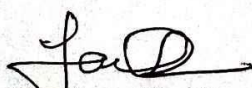
C204.1	Simplify Boolean functions using Kmap and quine Mcclasky
C204.2	Design and analyze combinational circuits
C204.3	Design and analyze sequential circuits
C204.4	Implement designs using programmable logic devices
C204.5	Design and Analyze Synchronous and Asynchronous Sequential Circuits and to write simple HDL codes

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C204.1	3	3	3	2	-	-	-	-	-	-	-	-
C204.2	3	3	3	2	-	-	-	-	-	-	-	-
C204.3	3	3	3	2	-	-	-	-	-	-	-	-
C204.4	3	3	3	2	-	-	-	-	-	-	-	-
C204.5	3	3	3	2	-	-	-	-	-	-	-	-
C204	3	3	3	2	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C204.1	3	2	-
C204.2	3	2	-
C204.3	3	2	-
C204.4	3	2	-
C204.5	3	2	-
C204	3	2	-


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Year / Semester: II Yr / III Sem
Course Name: Signals and Systems (EC6303)

Course Code : C205

Course Outcomes

At the end of the course, the student will be able to

C205.1	Analyze & classify Continuous and Discrete time signals and to identify LTI systems
C205.2	Derive the Fourier series for continuous time signals and analyze the Fourier transform and Laplace transform of different signals
C205.3	Analyze the output response of the Continuous Time systems by performing convolution and realize the continuous Time Systems
C205.4	Analyze the Discrete Time Fourier Transform and Z transform of Discrete Time signals & Understand the sampling theorem and to convert the analog signal to discrete signal
C205.5	Analyze the output response of the Discrete Time systems by performing convolution and realize the Discrete Time Systems

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C205.1	3	3	1	1	-	-	-	-	-	-	-	-
C205.2	3	3	1	3	-	-	-	-	-	-	-	-
C205.3	3	3	3	3	1	-	-	-	-	-	-	-
C205.4	3	3	1	3	1	-	-	-	-	-	-	-
C205.5	3	3	3	3	1	-	-	-	-	-	-	-
C205	3	3	1.8	2.6	1	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C205.1	3	3	-
C205.2	3	3	-
C205.3	3	3	-
C205.4	3	3	-
C205.5	3	3	-
C205	3	3	-

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Year / Semester: II Yr /III Sem
Course Name: Electronic Circuits-I (EC6304)
Course Outcomes

Course Code :C206

At the end of the course, the student will be able to

C206.1	understand the basic concept of biasing and design biasing for various types of amplifiers
C206.2	design and analyse BJT amplifiers
C206.3	design and analyse FET amplifiers
C206.4	analyze the frequency response of amplifier performances
C206.5	understand the basic concepts of IC MOSFET amplifiers

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C206.1	3	3	3	3	1	-	-	-	-	-	-	-
C206.2	3	3	3	3	1	-	-	-	-	-	-	-
C206.3	3	3	3	3	1	-	-	-	-	-	-	-
C206.4	3	3	3	2	1	-	-	-	-	-	-	-
C206.5	3	3	3	2	1	-	-	-	-	-	-	-
C206	3	3	3	2.6	1	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C206.1	3	2	-
C206.2	3	2	-
C206.3	3	2	-
C206.4	3	2	-
C206.5	3	2	-
C206	3	2	-

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Year / Semester: II Yr /III Sem

Course Code :C207

Course Name: Analog and Digital Circuits Laboratory (EC6311)

Course Outcomes

At the end of the course, the student will be able to


C207.1	design regulated power supplies
C207.2	design and analyze the frequency response of amplifiers
C207.3	simulate amplifier using SPICE
C207.4	design and implement combinational circuits.
C207.5	design and implement sequential circuits.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C207.1	3	3	3	2	3	-	-	-	2	-	-	-
C207.2	3	3	3	2	3	-	-	-	2	-	-	-
C207.3	3	3	3	2	3	-	-	-	2	-	-	-
C207.4	3	3	3	2	3	-	-	-	2	-	-	-
C207.5	3	3	3	2	3	-	-	-	2	-	-	-
C207	3	3	3	2	3	-	-	-	2	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C207.1	3	3	3
C207.2	3	3	1
C207.3	3	3	1
C207.4	3	3	2
C207.5	3	3	2
C207	3	3	1.8


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R-2013

Year / Semester: II Yr /III Sem

Course Code : C208

Course Name: OOPS and Data Structures Laboratory (EC6312)

Course Outcomes

At the end of the course, the student will be able to

C208.1	Demonstrate C++ programs for manipulating stacks, queues, linked list, trees and graphs
C208.2	Able to analyze and apply good programming design methods for program development
C208.3	Execute the different data structures for implementing solutions to practical problems

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C208.1	3	2	-	-	2	-	-	-	-	-	-	-
C208.2	-	-	2	-	-	-	-	-	-	-	-	-
C208.3	2	-	-	-	2	-	-	-	-	-	2	-
C208	2.5	2	2	-	2	-	-	-	-	-	2	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C208.1	-	2	-
C208.2	-	1	-
C208.3	-	1	-
C208	-	2	-

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R-2013

Year / Semester: II Yr /III Sem

Course Code : C209

Course Name: Probability and Random Processes (MA6451)

Course Outcomes

At the end of the course, the student will be able to

C209.1	Interpret the axiomatic formulation of Probability theory and random variables as an intrinsic need for the analysis of random phenomena
C209.2	Identify probability models, function of random variables based on one & two dimensional random variables and determine regression.
C209.3	Classify the concept of random processes and to demonstrate the specific applications to Poisson and Markov Processes.
C209.4	Evaluate correlation and spectral density of stationary random processes.
C209.5	Examine the idea of linear time invariant system.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C209.1	3	3	2	-	-	-	-	-	-	-	-	-
C209.2	3	3	2	-	-	-	-	-	-	-	-	-
C209.3	3	3	3	-	-	-	-	-	-	-	-	-
C209.4	3	2	3	-	-	-	-	-	-	-	-	-
C209.5	3	2	3	-	-	-	-	-	-	-	-	-
C209	3	2.6	2.6	-	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C209.1	1	-	-
C209.2	1	-	-
C209.3	1	-	-
C209.4	1	-	-
C209.5	1	-	-
C209	1	-	-


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Year / Semester: II Yr / III Sem

Course Code : C210

Course Name: Electronic Circuits II (EC6401)

Course Outcomes

At the end of the course, the student will be able to


C210.1	To understand the concepts and design of feedback amplifiers
C210.2	To understand the basic concepts, design and analyze RC, LC and crystal oscillators.
C210.3	To understand the performance of tuned amplifiers
C210.4	To understand the concepts of clipper, clamper and comparator circuits and multivibrators
C210.5	To understand the concepts of blocking oscillators and time base generators

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C210.1	3	3	3	2	1	-	-	-	-	-	-	-
C210.2	3	3	3	2	1	-	-	-	-	-	-	-
C210.3	3	3	3	2	1	-	-	-	-	-	-	-
C210.4	3	3	3	2	1	-	-	-	-	-	-	-
C210.5	3	3	1	1	1	-	-	-	-	-	-	-
C210	3	3	2.6	1.8	1	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C210.1	3	3	3
C210.2	3	3	3
C210.3	3	3	3
C210.4	3	3	3
C210.5	3	3	3
C210	2.4	3	3


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R-2013

Year / Semester: II Yr /III Sem

Course Code : C211

Course Name: Communication Theory (EC6402)

Course Outcomes

At the end of the course, the student will be able to

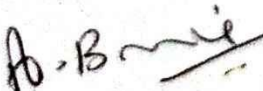
C211.1	Design AM systems.
C211.2	Design Angle modulated systems
C211.3	Apply the concepts of Random Process to the design of Communication systems
C211.4	Analyze the noise performance of AM and FM systems
C211.5	Gain knowledge in information theory and coding techniques

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C211.1	2	2	2	2	-	-	-	-	-	-	-	-
C211.2	2	2	2	2	-	-	-	-	-	-	-	-
C211.3	3	2	2	3	-	-	-	-	-	-	-	-
C211.4	2	2	2	2	-	-	-	-	-	-	-	-
C211.5	2	3	2	3	-	-	-	-	-	-	-	-
C211	2.2	2.2	2	2.4	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C211.1	-	3	1
C211.2	-	3	1
C211.3	-	3	1
C211.4	-	3	1
C211.5	-	3	1
C211	-	3	1


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Year / Semester: II Yr /IV Sem

Course Code :C212

Course Name: Electromagnetic Fields (EC6403)

Course Outcomes

At the end of the course, the student will be able to

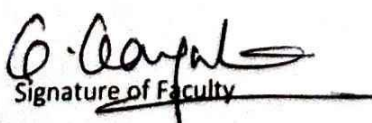
C212.1	apply vector calculus to understand the behavior of static electric fields in standard configurations
C212.2	impart the knowledge on the concepts of conductors and dielectrics in static electric fields
C212.3	apply vector calculus to understand the behavior of magnetic fields in standard configurations
C212.4	explain about how materials affect magnetic fields
C212.5	analyze the Maxwell's equation in different forms (Differential & Integral) and apply them to diverse engineering problems and also imparts knowledge about the electromagnetic wave propagation in lossless and lossy media

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212.1	2	2	1	1	-	-	-	-	-	-	-	-
C212.2	1	-	-	-	-	-	-	-	-	-	-	-
C212.3	2	1	1	1	-	-	-	-	-	-	-	-
C212.4	1	-	-	-	-	-	-	-	-	-	-	-
C212.5	2	1	1	1	-	-	-	-	-	-	-	-
C212.1	2	2	1	1	-	-	-	-	-	-	-	-
C212	1.6	1.333	1	1	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C212.1	-	1	-
C212.2	-	-	-
C212.3	-	1	-
C212.4	-	-	-
C212.5	-	1	-
C212.1	-	1	-


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Year / Semester: II Yr /IV Sem
Course Name: Linear Integrated Circuits (EC6404)

Course Code :C213

Course Outcomes

At the end of the course, the student will be able to

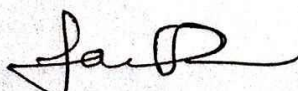
C213.1	understand the basic blocks of LIC
C213.2	design various linear and non-linear circuits using OP-AMP
C213.3	understand theory and applications of analog multiplier and PLL
C213.4	understand the theory of ADC and DAC
C213.5	design waveform generators and understand special function ICs

CO-PO Mapping


CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C213.1	3	3	3	3	-	-	-	-	-	-	-	-
C213.2	3	3	3	3	-	-	-	-	-	-	-	-
C213.3	3	3	3	3	-	-	-	-	-	-	-	-
C213.4	3	3	3	3	-	-	-	-	-	-	-	-
C213.4	3	3	3	3	-	-	-	-	-	-	-	-
C213	3	3	3	3	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C213.1	3	3	2
C213.2	3	3	2
C213.3	3	2	2
C213.4	3	3	2
C213.4	3	3	2
C213	3	2.8	2


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Year / Semester: II Yr /IV Sem

Course Code :C214

Course Name: Control Systems (EC6405)

Course Outcomes

At the end of the course, the student will be able to

C214.1	understand the methods of representation of systems and getting their transfer function models for analysis of physical systems and to introduce the control system components
C214.2	provide adequate knowledge in the time response of systems and steady state error analysis and to introduce the effects of controllers
C214.3	give basic knowledge in obtaining the open loop and closed loop frequency responses of systems and to study the design of compensators
C214.4	understand the concept of stability of control system and methods of stability analysis
C214.5	introduce state variable representation of physical systems

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C214.1	3	2	2	2	2	-	-	-	-	-	-	-
C214.2	3	2	2	2	2	-	-	-	-	-	-	-
C214.3	3	2	2	2	2	-	-	-	-	-	-	-
C214.4	3	2	2	2	2	-	-	-	-	-	-	-
C214.5	3	2	2	1	-	-	-	-	-	-	-	-
C214	3	2	2	1.8	2	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C214.1	3	3	2
C214.2	3	2	-
C214.3	3	2	2
C214.4	2	2	-
C214.5	1	-	-
C214	2.4	2.25	2


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Year / Semester: II Yr /IV Sem

Course Code :C215

Course Name: Circuit and Simulation Laboratory (EC6411)

Course Outcomes

At the end of the course, the student will be able to


C215.1	analyze various types of feedback amplifiers
C215.2	design oscillators, tuned amplifiers and multivibrators
C215.3	demonstrate the various types of blocking oscillators
C215.4	simulate oscillators, tuned amplifiers, wave shaping circuits and multivibrators using SPICE tool.
C215.5	perform voltage and current time base circuits using PSPICE Tool.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C215.1	2	3	2	-	2	-	-	-	-	-	-	-
C215.2	2	3	2	-	2	-	-	-	-	-	-	-
C215.3	2	3	2	-	2	-	-	-	-	-	-	-
C215.4	2	3	2	-	2	-	-	-	-	-	-	-
C215.5	2	3	2	-	2	-	-	-	-	-	-	-
C215	2	3	2	-	2	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C215.1	2	-	-
C215.2	2	-	-
C215.3	2	-	-
C215.4	2	-	-
C215.5	2	-	-
C215	2	-	-


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Year / Semester: II Yr /IV Sem

Course Code :C216

Course Name: Linear Integrated Circuits Lab(EC6412)

Course Outcomes

At the end of the course, the student will be able to

C216.1	Design and simulate amplifiers, oscillators using operational amplifiers.
C216.2	Design and simulate filters using op-amp and analyse its frequency response
C216.3	Analyze the working of PLL and its application as a frequency multiplier.
C216.4	Design DC power supply using ICs.
C216.5	Analyze the performance of filters, multivibrators, A/D converter and analog multiplier using SPICE.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C216.1	3	3	3	3	-	-	-	-	-	-	-	-
C216.2	3	3	3	3	-	-	-	-	-	-	-	-
C216.3	3	3	3	3	-	-	-	-	-	-	-	-
C216.4	3	3	3	3	-	-	-	-	-	-	-	-
C216.5	3	3	3	3	-	-	-	-	-	-	-	-
C216	3	3	3	3	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C216.1	3	3	2
C216.2	3	3	2
C216.3	3	2	2
C216.4	3	3	2
C216.5	3	3	2
C216	3	3	2

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Year / Semester: III Yr /V Sem

Course Code :C217

Course Name: Electrical Engineering and Control Systems Laboratory (EE6461)

Course Outcomes

At the end of the course, the student will be able to

C217.1	perform experiments to study the load characteristics of DC Motors/Generators
C217.2	design bridge network circuit to measure the values of passive component
C217.3	analyse the stability of linear system through simulation software
C217.4	design transfer function of DC generators
C217.5	estimate the effect of P,PI,PID controllers using MATLAB or equivalent software

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C217.1	2	-	-	-	-	-	-	-	-	-	-	-
C217.2	1	3	3	-	-	-	-	-	-	-	-	-
C217.3	1	3	2	2	-	-	-	-	-	-	2	-
C217.4	1	1	3	2	-	-	-	-	-	-	-	-
C217.5	1	2	3	2	2	-	-	-	-	-	2	-
C217	1.2	2.25	2.75	2	2	-	-	-	-	-	2	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C217.1	-	-	-
C217.2	3	-	1
C217.3	2	-	-
C217.4	-	-	-
C217.5	2	1	-
C217	233	1	1


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Year / Semester: III Yr / A' Sem
Course Name: Digital Communication (EC6501)

Course Code : C301

Course Outcomes

At the end of the course, the student will be able to


C301.1	gain knowledge in sampling and quantization
C301.2	design and implement base band transmission schemes
C301.3	design and implement band pass signalling schemes
C301.4	analyse the spectral characteristics of band pass signalling schemes and their noise performance
C301.5	design error control coding schemes

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301.1	3	2	3	2	-	-	-	-	-	-	-	-
C301.2	3	2	2	3	-	-	-	-	-	-	-	-
C301.3	3	2	2	2	-	-	-	-	-	-	-	-
C301.4	3	3	2	1	-	-	-	-	-	-	-	-
C301.5	3	2	3	3	-	-	-	-	-	-	-	-
C301	3	2.2	2.4	2.2	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C301.1	2	3	1
C301.2	-	3	1
C301.3	-	3	1
C301.4	-	3	1
C301.5	-	3	1
C301	2	3	1


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Year / Semester: III Yr / V Sem

Course Code : C302

Course Name: Principles of Digital Signal Processing (EC6502)

Course Outcomes

At the end of the course, the student will be able to


C302.1	apply DFT for the analysis of digital signals and systems
C302.2	design IIR filters
C302.3	design FIR Filters
C302.4	analyse finite word length effects
C302.5	design Multi rate filters and apply adaptive filters to equalisation

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302.1	3	3	3	3	3	-	-	-	-	-	-	-
C302.2	3	3	3	3	3	-	-	-	-	-	-	-
C302.3	3	3	3	3	3	-	-	-	-	-	-	-
C302.4	3	3	3	3	3	-	-	-	-	-	-	-
C302.5	3	3	3	3	3	-	-	-	-	-	-	-
C302	3	3	3	3	3	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C302.1	3	3	2
C302.2	3	3	2
C302.3	3	3	2
C302.4	3	3	2
C302.5	3	3	2
C302	3	3	2


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Year / Semester: III Yr /V Sem

Course Code :C303

Course Name: Transmission Lines and Waveguides(EC6503)

Course Outcomes

At the end of the course, the student will be able to


C303.1	discuss the signal propagation through transmission lines.
C303.2	discuss the difference between low frequency transmission and propagation at Radio Frequencies.
C303.3	analyze impedance matching techniques using stubs.
C303.4	analyze the different types of passive filters
C303.5	explain the usage of wave guides and cavity resonators.

CO-PO MAPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303.1	3	3	2	2	-	-	-	-	-	-	-	-
C303.2	3	3	2	2	-	-	-	-	-	-	-	-
C303.3	1	3	3	3	2	-	-	-	-	-	-	-
C303.4	2	2	3	3	1	-	-	-	-	-	-	-
C303.5	3	3	2	2	-	-	-	-	-	-	-	-
C303	2.4	2.8	2.4	2.4	1.5	-	-	-	-	-	-	-

CO-PSO MAPING

CO	PSO1	PSO2	PSO3
C303.1	3	3	2
C303.2	3	3	2
C303.3	3	3	2
C303.4	3	3	2
C303.5	3	3	2
C303	3	3	2


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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
CO-PO, PSO MAPPING
R-2013

Year / Semester: III Yr / V Sem

Course Code : C304

Course Name: Environmental Science and Engineering(EC 6351)

Couse Outcomes

At the end of the course, the student will be able to

C304.1	The knowledge gained on flora and fauna in our environment helps to know about social environment
C304.2	The students will gain knowledge on the offensive effects of pollution in day to day life
C304.3	The students will aquire knowledge on the natural resources available and their conservation
C304.4	The students will have adequate knowledge on the concepts of adverse effects of social issues like acid rain and global warming
C304.5	The students will get knowledge about the problems faced by society due to population explosion

CO-PO MAPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C304.1	1	1	1	-	-	-	2	2	1	-	-	-
C304.2	1	1	2	-	-	-	3	3	1	-	-	-
C304.3	2	2	1	-	-	-	2	2	1	-	-	-
C304.4	3	3	1	-	-	-	3	3	-	-	-	-
C304.5	2	2	2	-	-	-	1	1	-	-	-	-
C304	1.8	1.8	1.4	-	-	-	2.2	2.2	1	-	-	-

CO-PSO MAPING

CO	PSO1	PSO2	PSO3
C304.1	-	-	-
C304.2	-	-	-
C304.3	-	-	-
C304.4	-	-	-
C304.5	-	-	-
C304	-	-	-


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R-2013

Year / Semester: III Yr /V Sem

Course Code: C305

Course Name: Microprocessor and Microcontroller(EC 6504)

Course Outcomes

At the end of the course, the student will be able to

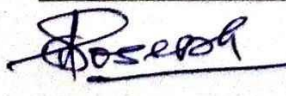
C305.1	Understand architecture of 8086 and Design and implement programs on 8086 microprocessor.
C305.2	Understand signals, system bus architecture of 8086 and multiprocessor configuration.
C305.3	Design and implement interfacing of I/O circuits with 8086 microprocessor
C305.4	Understand architecture of 8051 microcontroller.
C305.5	Understand architecture of 8051 , Design and implement programs on 8051 microcontroller.

CO-PO MAPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C305.1	3	3	3	3	-	-	-	-	-	-	-	-
C305.2	3	2	2	2	-	-	-	-	-	-	-	-
C305.3	3	3	3	3	-	-	-	-	-	-	-	-
C305.4	3	2	2	2	-	-	-	-	-	-	-	-
C305.5	3	3	3	3	-	-	-	-	-	-	-	-
C305	3	2.6	2.6	2.6	-	-	-	-	-	-	-	-

CO-PSO MAPING

CO	PSO1	PSO2	PSO3
C305.1	3	3	3
C305.2	3	3	3
C305.3	3	3	3
C305.4	3	3	3
C305.5	3	3	3
C305	3	3	3


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CO-PO, PSO MAPPING
R-2013

Year / Semester: III Yr / V Sem

Course Code :C306

Course Name: Digital Signal Processing Lab (EC6511)

Course Outcomes

At the end of the course, the student will be able to

C306.1	simulate Linear and Circular Convolution
C306.2	simulate FFT and IFFT algorithms
C306.3	simulate FIR and IIR filters
C306.4	implement programs using various addressing modes in DSP processor
C306.5	implement signal generation and linear convolution using DSP processor

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C306.1	3	3	3	2	2	-	-	-	-	-	-	-
C306.2	3	3	3	2	3	-	-	-	-	-	-	-
C306.3	3	3	3	2	3	-	-	-	-	-	-	-
C306.4	3	3	3	2	3	-	-	-	-	-	-	-
C306.5	3	3	3	2	3	-	-	-	-	-	-	-
C306	3	3	3	2	2.8	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C306.1	3	3	-
C306.2	3	2	-
C306.3	2	2	-
C306.4	2	1	-
C306.5	2	2	-
C306	2.4	2	-

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Year / Semester: III Yr / V Sem
Course Name: Communication System Lab (EC6512)

Course Code :C307

Course Outcomes

At the end of the course, the student will be able to


C307.1	Simulate and validate the various functional modules of a communication system
C307.2	Demonstrate their knowledge in baseband signalling schemes through implementation of digital modulation schemes
C307.3	Apply various channel coding schemes & demonstrate their capabilities towards the improvement of the noise performance of communication system
C307.4	Simulate end to end communication link

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C307.1	2	2	3	1	3	-	-	-	-	-	-	-
C307.2	2	2	3	1	3	-	-	-	-	-	-	-
C307.3	2	2	3	-	3	-	-	-	-	-	-	-
C307.4	2	2	2	-	3	-	-	-	-	-	-	-
C307	2	2	2.7	0.5	3	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C307.1	-	2	2
C307.2	-	2	2
C307.3	-	2	2
C307.4	-	2	2
C307	-	2	2


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Year / Semester: III Yr / V Sem

Course Code :C308

Course Name: Microprocessors and Microcontrollers Lab (EC6513)

Course Outcomes

At the end of the course, the student will be able to

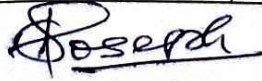
C308.1	Introduce ALP concepts and features
C308.2	Write ALP for arithmetic and logical operations in 8086 and 8051
C308.3	Differentiate Serial and Parallel Interface
C308.4	Interface different I/Os with Microprocessors
C308.5	Be familiar with MASM

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C308.1	3	3	3	2	3	-	-	-	-	-	-	-
C308.2	3	3	3	2	3	-	-	-	-	-	-	-
C308.3	3	3	3	2	-	-	-	-	-	-	-	-
C308.4	3	3	3	3	-	-	-	-	-	-	-	-
C308.5	3	3	3	2	3	-	-	-	-	-	-	-
C308	3	3	3	2.2	3	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C308.1	3	3	3
C308.2	3	3	3
C308.3	3	3	3
C308.4	3	3	3
C308.5	3	3	3
C308	3	3	3


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CO-PO, PSO MAPPING
R-2013

Year / Semester: III Yr /VI Sem

Course Code :C309

Course Name: Principles Of Management (MG6851)

Course Outcomes

At the end of the course, the student will be able to

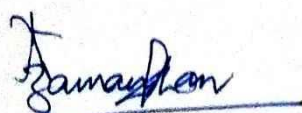
C309.1	An understanding of the managerial functions like planning, organizing, staffing, leading & controlling
C309.2	The basic knowledge on international aspect of management
C309.3	The basic knowledge on management and its evolution
C309.4	A knowledge on budgetary control and their strategies
C309.5	A understanding of the motivational theories existing in the management

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C309.1	-	-	-	-	-	2	-	2	2	1	3	1
C309.2	-	-	-	-	-	2	-	2	2	-	2	1
C309.3	-	-	-	-	-	2	-	2	2	-	-	1
C309.4	-	-	-	-	-	2	-	2	2	3	2	1
C309.5	-	-	-	-	-	2	-	2	2	-	-	1
C309	-	-	-	-	-	2	-	2	2	2	2.3	1

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C309.1	-	-	-
C309.2	-	-	-
C309.3	-	-	-
C309.4	-	-	-
C309.5	-	-	-
C309	-	-	-


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R-2013

Year / Semester: III Yr /VI Sem

Course Code :C310

Course Name: Computer Architecture(CS6303)

Course Outcomes

At the end of the course, the student will be able to

C310.1	Understand basic structure and operation of digital computers
C310.2	Design Arithmetic and Logic Unit
C310.3	Design and analyze pipelined control units
C310.4	Understand parallel processing architectures
C310.5	Evaluate performance of memory systems

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C310.1	3	-	1	-	-	-	-	-	-	-	-	-
C310.2	2	1	3	-	-	-	-	-	-	-	-	-
C310.3	2	1	3	-	-	-	-	-	-	-	-	-
C310.4	2	-	2	-	-	-	-	-	-	-	-	-
C310.5	1	-	3	-	-	-	-	-	-	-	-	-
C310	2	1	2.4	-	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C310.1	3	-	-
C310.2	3	1	-
C310.3	3	1	-
C310.4	-	1	1
C310.5	-	-	2
C310	3	1	1.5

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Year / Semester: III Yr / VI Sem
Course Name: Computer Networks (CS6551)

Course Code : C311

Course Outcomes

At the end of the course, the student will be able to

C311.1	Explain the components requirement of networks and link layer service
C311.2	Classify the Media Access Control Protocols and different Internetworking
C311.3	Demonstrate various types of routing techniques
C311.4	Outline the mechanisms involved in transport layer
C311.5	Experiment with different application layer protocols

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311.1	2	3	-	-	-	-	-	-	-	-	-	-
C311.2	2	2	1	3	-	-	-	-	-	-	-	-
C311.3	2	1	3	-	-	-	-	-	-	-	-	-
C311.4	2	2	-	-	-	-	-	-	-	-	-	-
C311.5	2	1	3	-	2	-	-	-	-	-	-	-
C311	2	1.8	1.4	0.6	0.4	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C311.1	3	-	-
C311.2	3	-	-
C311.3	3	-	-
C311.4	3	-	-
C311.5	-	3	-
C311	2.4	0.6	-


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R-2013

Year / Semester: III Yr / VI Sem
Course Name: VLSI Design (EC6601)

Course Code : C312

Course Outcomes

At the end of the course, the student will be able to


C312.1	Understand the basic principle of MOS transistor and learn second order effects
C312.2	Design combinational circuits using various logic families
C312.3	Analyze the timing issues of sequential circuits
C312.4	Study various architectures of ALU modules
C312.5	Learn various implementation strategies for ASIC design

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C312.1	3	3	2	3	2	-	-	-	-	-	-	-
C312.2	3	3	3	3	3	-	-	-	-	-	-	-
C312.3	3	3	3	3	3	-	-	-	-	-	-	-
C312.4	2	2	3	3	3	-	-	-	-	-	-	-
C312.5	2	2	3	3	3	-	-	-	-	-	-	-
C312	2.6	2.6	2.8	3	2.8	-	-	-	-	-	-	-

CO-PSO Mapping

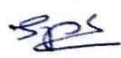
CO	PSO1	PSO2	PSO3
C312.1	3	3	3
C312.2	3	3	3
C312.3	3	3	3
C312.4	2	2	2
C312.5	3	3	3
C312	3	3	3


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CO-PO, PSO MAPPING
R-2013

Year / Semester: III Yr / VI Sem

Course Code : C313

Course Name: Antenna and Wave Propagation(EC6602)

Course Outcomes

At the end of the course, the student will be able to

C313.1	understand the various parameters of antenna and to understand about radiation from current element
C313.2	analyse the various types of antennas and their design procedure.
C313.3	analyse the antenna arrays and study their radiation pattern
C313.4	analyse the special antennas such as frequency independent and broadband antennas
C313.5	understand the different modes of propagation for different frequencies.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C313.1	3	3	3	2	2	-	-	-	-	-	-	-
C313.2	3	3	3	3	3	-	-	-	-	-	-	-
C313.3	3	3	3	3	3	-	-	-	-	-	-	-
C313.4	3	3	3	3	3	-	-	-	-	-	-	-
C313.5	3	3	3	2	1	-	-	-	-	-	-	-
C313	3	3	3	2.6	2.4	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C313.1	2	2	2
C313.2	2	2	2
C313.3	2	2	2
C313.4	2	2	2
C313.5	1	2	2
C313	1.8	2	2

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R-2013

Year / Semester: III Yr / VI Sem
Course Name: Medical Electronics (EC6001)

Course Code : C314A

Course Outcomes

At the end of the course, the student will be able to

C314A.1	Describe the basic physiology and Bio potential recording methods and their typical waveforms
C314A.2	Discuss the methods used to measure the Non electrical and Bio Chemical parameters
C314A.3	Discuss about the assist device such as Pacemaker, defibrillator, dialyzer, Heart Lung machine
C314A.4	Describe the different types of diathermy and Bio telemetry principles
C314A.5	Explore Recent trends in medical instrumentation and application of laser in medicine

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314A.1	3	2	3	2	-	2	1	-	-	-	-	-
C314A.2	3	2	3	2	-	2	1	-	-	-	-	-
C314A.3	3	2	3	2	-	2	1	-	-	-	-	-
C314A.4	3	2	3	2	-	2	1	-	-	-	-	-
C314A.5	3	2	3	2	-	2	1	-	-	-	-	-
C314A	3	2	3	2	-	2	1	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C314A.1	3	3	3
C314A.2	3	3	3
C314A.3	3	3	3
C314A.4	3	3	3
C314A.5	3	3	3
C314A	3	3	3


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Year / Semester: III Yr /VI Sem

NBA Course Code :C314B

Course Name: Robotics and Automation (EC6003)

Course Outcomes

At the end of the course, the student will be able to

C314B.1	understand the basic concept, generation and different types of robot
C314B.2	analyze the various drive systems of robotics
C314B.3	understand the working principles of various sensors used in the design of robots
C314B.4	study the concepts of different types of end effectors.
C314B.5	understand the basic concept of dynamics and kinematics of robots & To study the various non manufacturing application of robots

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314B.1	1	-	1	-	-	-	-	1	-	-	-	-
C314B.2	1	1	1	1	-	-	-	-	-	-	-	-
C314B.3	1	1	3	3	3	-	-	-	-	-	-	-
C314B.4	-	-	1	1	3	-	3	-	-	-	-	-
C314B.5	2	-	-	-	3	-	-	-	-	-	-	-
C314B	1.25	1	1.5	1.667	3	-	3	1	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C314B.1	2	2	-
C314B.2	2	1	-
C314B.3	1	2	-
C314B.4	1	1	-
C314B.5	-	-	3
C314B	1.5	1.5	3


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Year / Semester: III Yr /VI Sem

Course Code :C315

Course Name: Computer Networks Laboratory (EC6611)

Course Outcomes

At the end of the course, the student will be able to

C315.1	Demonstrate the communication between two desktop computers
C315.2	Elaborate the different protocols using socket programming
C315.3	Implement and compare the various routing algorithms experiment various simulation tools needed for communication of computers

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C315.1	-	-	3	-	2	2	-	-	-	-	-	-
C315.2	-	-	-	3	3	2	-	-	-	-	-	-
C315.3	-	-	-	3	-	2	-	-	-	-	-	-
C315			1	2	1.66	2	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C315.1	-	2	-
C315.2	-	2	1
C315.3	-	2	1
C315	-	2	0.66

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Year / Semester: III Yr /VI Sem
Course Name: VLSI Design Laboratory (EC6612)

Course Code :C316

Course Outcomes

At the end of the course, the student will be able to


C316.1	Develop the HDL code for basic as well as advanced digital integrated circuits
C316.2	Import the logic modules into FPGA Boards
C316.3	Perform the Synthesization, Place and Route the digital IPs.
C316.4	Design, Simulate and Extract the layouts of Analog IC block using EDA tools
C316.5	Simulate the modern chip manufacturing software tools

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C316.1	2	2	3	2	3	-	-	-	2	2	1	-
C316.2	2	2	3	2	3	-	-	-	2	2	1	-
C316.3	2	2	3	2	3	-	-	-	2	2	1	-
C316.4	2	2	3	2	3	-	-	-	2	2	1	-
C316.5	2	2	3	2	3	-	-	-	2	2	1	-
C316.1	2	2	3	2	3	-	-	-	2	2	1	-
C316	2	2	3	2	3	-	-	-	2	2	1	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C316.1	3	3	3
C316.2	3	3	3
C316.3	3	3	3
C316.4	3	3	3
C316.5	3	3	3
C316.1	3	3	3
C316	3	3	3


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CO-PO, PSO MAPPING
R-2013

Year / Semester: III Yr /VI Sem

Course Code :C317

Course Name: Communication and Soft Skills - Laboratory Based (GE6674)

Course Outcomes

At the end of the course, the student will be able to

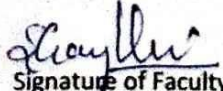
C317.1	Take international examination such as IELTS and TOEFL.
C317.2	Make presentations and Participate in Group Discussions
C317.3	Successfully answer questions in interviews

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C317.1	-	1	-	2	-	2	-	1	3	3	-	2
C317.2	-	1	-	2	3	2	-	1	2	2	-	-
C317.3	-	1	-	-	3	-	-	1	3	-	-	2
C317	-	1	-	2	3	-	-	1	2.66	2.5	-	2

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C317.1	-	2	-
C317.2	-	2	-
C317.3	-	-	-
C317	-	2	-


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CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr /VII Sem
Course Name: RF & Microwave Engineering (EC 6701)

Course Code: C401

Course Outcomes

At the end of the course, the student will be able to

C401.1	represent the multiport network using scattering matrix and analyze the multiport network.
C401.2	analyze the stability of RF amplifier for various source and load impedances.
C401.3	discuss about active and passive Microwave devices, components, their characteristics, their working, and their applications.
C401.4	understand the generation of microwave signals and to understand various microwave sources.
C401.5	discuss the microwave parameters, different measurement devices.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C401.1	3	3	3	3	-	-	-	-	-	-	-	-
C401.2	3	3	3	3	2	-	-	-	-	-	-	-
C401.3	3	3	3	3	-	-	-	-	-	-	-	-
C401.4	3	2	2	2	-	-	-	-	-	-	-	-
C401.5	2	1	2	2	-	-	-	-	-	-	-	-
C401	2.8	2.4	2.6	2.6	2	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C401.1	3	3	2
C401.2	3	3	2
C401.3	3	3	2
C401.4	3	3	2
C401.5	3	3	2
C401	3	3	2


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CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr / VII Sem

Course Code: C402

Course Name: Optical Communication and Networks (EC 6702)

Course Outcomes

At the end of the course, the student will be able to

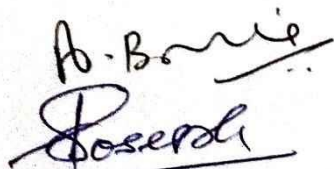
C402.1	Analyse of optical fiber System and classification of Mode Theory
C402.2	Determine the Attenuation method and classify Different Types of Dispersion Method
C402.3	Analyse optical sources and fiber Amplifiers Technique
C402.4	Understand Optical Receivers and measuring Technique
C402.5	Understand Application of Different optical Network Systems

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402.1	3	3	1	1	-	2	-	-	-	-	-	1
C402.2	3	3	-	1	-	-	-	-	-	-	2	-
C402.3	3	-	3	1	-	2	-	-	2	-	-	-
C402.4	3	-	2	1	-	-	-	-	-	-	-	-
C402.5	3	-	1	1	2	2	-	1	2	-	2	3
C402	3	3	1.75	1	2	2	-	1	2	-	2	2

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C402.1	-	2	-
C402.2	-	2	-
C402.3	-	2	-
C402.4	-	2	-
C402.5	-	3	3
C402	-	2.2	3


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CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr / VII Sem

Course Code: C403

Course Name: EMBEDDED AND REAL TIME SYSTEMS (EC 6703)

Course Outcomes

At the end of the course, the student will be able to

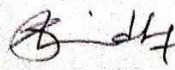
C403.1	understand the basic characteristics, Design and classification of embedded system.
C403.2	understand the basic concepts of bus protocols, interrupts, memory and I/O devices.
C403.3	understand the programming concepts of embedded system.
C403.4	develop real time algorithm for task scheduling.
C403.5	discuss the design of various real time application of embedded system and various tools for building RTOS.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C403.1	2	-	2	1	-	-	-	-	-	-	-	-
C403.2	2	-	2	2	1	-	-	-	-	-	-	-
C403.3	-	1	-	-	3	-	-	-	-	-	-	-
C403.4	-	-	1	1	3	-	-	-	-	-	-	-
C403.5	-	1	3	3	3	1	-	-	-	-	-	-
C403	2	1	2	1.75	2.5	1	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C403.1	3	1	2
C403.2	3	1	-
C403.3	3	-	-
C403.4	3	-	-
C403.5	3	2	3
C403	3	1.33	2.5


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R-2013

Year / Semester: IV Yr /VII Sem
Course Name: Digital Image Processing (IT 6005)

Course Code : C404A

Course Outcomes

At the end of the course, the student will be able to

C404A.1	Discuss fundamentals of Digital image and components of image processing system .
C404A.2	Apply image enhancement techniques using time and frequency domain.
C404A.3	Apply image restoration and segmentation techniques.
C404A.4	Use image compression models and techniques and apply concepts of wavelets.
C404A.5	Represent features of images and able to recognize.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C404A.1	3	-	2	-	2	-	-	-	-	-	-	-
C404A.2	3	2	2	2	2	-	-	-	-	-	-	-
C404A.3	3	-	2	2	2	-	-	-	-	-	-	-
C404A.4	3	2	2	2	2	-	-	-	-	-	-	-
C404A.5	3	2	2	2	2	-	-	-	-	-	-	-
C404A	3	2	2	2	2	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C404A.1	2	-	-
C404A.2	2	-	-
C404A.3	2	-	1
C404A.4	2	3	-
C404A.5	2	2	-
C404A	2	2.5	1



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CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr / VII Sem
Course Name: Satellite Communication (EC 6004)

Course Code : C404B

Course Outcomes

At the end of the course, the student will be able to


C404B.1	Analyze the satellite orbits.
C404B.2	Analyze the earth segment and space segment.
C404B.3	Analyze the satellite Link design
C404B.4	Analyze the Multiple Access Methods
C404B.5	Apply the basics of satellite Networks and design of satellite application

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C404B.1	3	2	2	2	-	-	-	-	-	-	-	-
C404B.2	3	-	3	2	-	-	-	-	-	-	-	-
C404B.3	3	2	3	3	-	-	-	-	-	-	-	-
C404B.4	3	-	2	2	-	-	-	-	-	-	-	-
C404B.5	3	2	2	-	-	-	-	-	-	-	-	-
C404B	3	2	2.5	2.24	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C404B.1	-	3	1
C404B.2	-	3	1
C404B.3	2	3	1
C404B.4	-	3	1
C404B.5	-	3	1
C404B	2	3	1


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Year / Semester: IV Yr /VII Sem
Course Name: Speech Processing (EC 6007)

Course Code : C405A

Course Outcomes

At the end of the course, the student will be able to

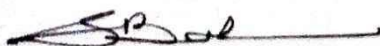
C405A.1	Understand the Fundamentals of speech production
C405A.2	Explain Distortion measures and time alignment
C405A.3	Implement Hidden Markov Models
C405A.4	Deal with the issues in speech recognition and explain the concept of text to speech synthesis
C405A.5	Apply the knowledge of Speech processing in real time applications

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C405A.1	3	1	2	-	-	-	-	-	-	-	-	-
C405A.2	3	2	-	2	-	-	-	-	-	-	-	-
C405A.3	3	2	-	2	-	-	-	-	-	-	-	-
C405A.4	3	3	-	2	-	-	-	-	-	-	-	-
C405A.5	3	2	-	3	-	-	-	-	-	-	-	-
C405A	3	2	2	2.24	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C405A.1	3	3	
C405A.2	3	3	
C405A.3	3	3	2
C405A.4	3	3	
C405A.5	3	3	
C405A	3	3	2


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CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr /VII Sem

Course Code : C405B

Course Name: Electromagnetic Interference & Compatibility (EC 6011)

Course Outcomes

At the end of the course, the student will be able to

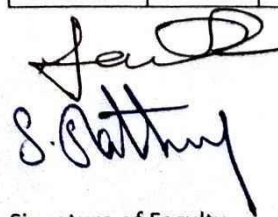
C405B.1	understand the basic concept of EMI / EMC related to product design & development
C405B.2	analyze the different EM coupling principles and its impact on performance of electronic system
C405B.3	instill knowledge on the EMI coupling mechanism and its mitigation techniques
C405B.4	impart comprehensive insight about the current EMC standards and about various measurement techniques
C405B.5	understand basic concepts of EMC testing methods and working principles of instruments for measurement & analysis

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C405B.1	3	1	3	-	-	-	-	-	-	-	-	-
C405B.2	3	2	1	-	-	-	-	-	-	-	-	-
C405B.3	3	2	2	3	-	-	-	-	-	-	-	-
C405B.4	3	-	1	-	-	-	-	-	-	-	-	-
C405B.5	3	1	1	-	-	-	-	-	-	-	-	-
C405B	3	1.5	1.6	3	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C405B.1	3	-	-
C405B.2	3	-	-
C405B.3	3	-	1
C405B.4	3	-	1
C405B.5	3	3	1
C405B	3	3	1


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R-2013

Year / Semester: IV Yr / VII Sem
Course Name: EC6016 Opto Electronic Devices

Course Code: C406

Course Outcomes

At the end of the course, the student will be able to


C406.1	Understand basic principles of light and semiconductor physics
C406.2	Design display devices and analyze various types of LASERS
C406.3	Design various thermal and photo detectors
C406.4	Understand different types of optoelectronic modulators
C406.5	Explore Optoelectronic Integrated Circuits

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C406.1	3	2	3	1	-	-	-	-	-	-	-	-
C406.2	3	2	3	1	-	-	-	-	-	-	-	-
C406.3	3	2	3	1	-	-	-	-	-	-	-	-
C406.4	3	2	3	1	-	-	-	-	-	-	-	-
C406.5	3	2	3	1	1	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C406.1	3	3	3
C406.2	3	3	3
C406.3	3	3	3
C406.4	3	3	3
C406.5	3	3	3


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CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr / VII Sem
Course Name: EC6711 Embedded Laboratory

Course Code : C407

Course Outcomes

At the end of the course, the student will be able to

C407.1	Write programs in ARM for a specific Application
C407.2	Interface memory and Write programs related to memory operations
C407.3	Interface A/D and D/A convertors with ARM system
C407.4	Analyse the performance of interrupt
C407.5	Write programmes for interfacing keyboard, display, motor and sensor

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C407.1	3	3	2	2	3	-	-	-	-	-	-	-
C407.2	3	3	2	2	3	-	-	-	-	-	-	-
C407.3	3	3	2	2	3	-	-	-	-	-	-	-
C407.4	3	3	2	2	3	-	-	-	-	-	-	-
C407.5	3	3	2	2	3	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C407.1	3	3	3
C407.2	3	3	3
C407.3	3	3	3
C407.4	3	3	3
C407.5	3	3	3

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CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr / VII Sem
Course Name: EC6712 Optical & Microwave Lab

Course Code : C408

Course Outcomes

At the end of the course, the student will be able to


C408.1	Different characteristics of klystron and Gunn diode
C408.2	Solve theoretical S – Parameter measurement with the practical value.
C408.3	Implement S – Matrix characterization.
C408.4	Evaluate the radiation pattern, gain and directivity of any antenna.
C408.5	Design fiber optic analog and digital link.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C408.1	3	2	1	2	-	1	1	1	2	-	1	-
C408.2	3	2	1	2	-	1	1	1	2	-	1	-
C408.3	3	2	1	2	-	1	1	1	2	-	1	-
C408.4	3	2	1	2	-	1	1	1	2	-	1	-
C408.5	3	2	1	2	-	1	1	1	2	-	1	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C408.1	2	1	1
C408.2	2	1	1
C408.3	2	1	1
C408.4	2	1	1
C408.5	2	1	1


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Year / Semester: IV Yr / VIII Sem
Course Name: EC6801 Wireless Communication

Course Code : C409

Course Outcomes

At the end of the course, the student will be able to

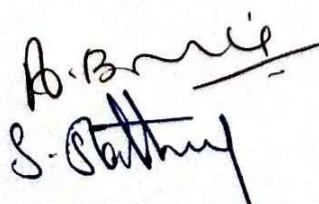
C409.1	Analyse of Basic wireless technology
C409.2	Analyse the Large scale propagation & small scale fading
C409.3	Determine the cellular System.
C409.4	Compare multi path Mitigation techniques
C409.5	Determine the systems with Transmit / Receive Diversity in MIMO Systems Implementation & Analysis the MIMO Systems

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C409.1	3	3	3	3	2	1	-	-	-	-	-	-
C409.2	3	3	3	3	2	1	-	-	-	-	-	-
C409.3	3	3	3	3	2	-	-	-	-	-	-	-
C409.4	3	3	3	3	2	-	-	-	-	-	-	-
C409.5	3	3	3	3	2	1	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C409.1	3	3	3
C409.2	3	3	3
C409.3	3	3	3
C409.4	3	3	3
C409.5	3	3	3


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Year / Semester: IV Yr /VIII Sem
Course Name: Wireless Networks (EC6804)

Course Code :C410

Course Outcomes

At the end of the course, the student will be able to

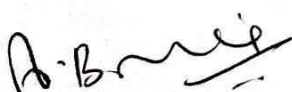
C410.1	understand the architecture, protocol stack and services offered by Wireless Local Area Networks
C410.2	understand the basics of mobile IP networks, mechanism behind packet delivery and various routing protocols of MANETs
C410.3	understand the TCP operation in wired networks and its extension to 3G wireless networks
C410.4	understand the architecture of UMTS, protocol layers and various services offered by 3G networks
C410.5	understand the motivation behind 4G evolution and various technologies developed for 4G networks

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C410.1	2	2	2	2	-	-	-	-	-	-	-	-
C410.2	2	2	3	2	-	-	-	-	-	-	-	-
C410.3	2	2	3	2	-	-	-	-	-	-	-	-
C410.4	2	2	2	3	-	-	-	-	-	-	-	-
C410.5	2	2	2	3	-	-	-	-	-	-	-	-
C410	2	2	2.4	2.4	-	-	-	-	-	-	-	-

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C410.1	3	3	2
C410.2	3	3	2
C410.3	3	3	2
C410.4	3	3	2
C410.5	3	3	2
C410	3	3	2


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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr /VIII Sem
Course Name: Professional Ethics (GE6075)

Course Code :C411

Course Outcomes

At the end of the course, the student will be able to

C411.1	gain awareness on human values for professional excellence and stress management
C411.2	gain knowledge on engineering ethics, moral issues & uses of ethical theories
C411.3	understand the role of engineers as responsible experimenters along with courses of ethics in engineering field .
C411.4	gain awareness of responsibilities of an engineer for safety and risk along with risk benefit analysis
C411.5	acquire knowledge on global issues and able to apply ethical principles to resolve situations that arise in their professional lives

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C411.1	-	-	-	-	-	2	-	3	2	1	-	2
C411.2	-	-	-	-	-	2	-	3	2	1	-	3
C411.3	-	-	-	-	-	2	2	3	2	1	-	3
C411.4	-	-	-	-	-	2	3	3	2	1	-	3
C411.5	-	-	-	-	-	2	2	3	2	1	-	3
C411	-	-	-	-	-	2	2.33	3	2	1	-	2.8

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C411.1	-	-	-
C411.2	-	-	1
C411.3	-	-	1
C411.4	-	-	1
C411.5	-	-	1
C411	-	-	1


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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr /VIII Sem
Course Name: Total Quality Management (GE6757)
Course Outcomes

Course Code :C412

At the end of the course, the student will be able to

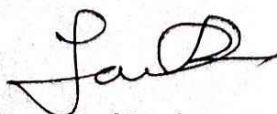
C412.1	select and apply appropriate techniques in identifying customer needs, as well as the quality impact that will be used as inputs in TQM methodologies
C412.2	have a strategy to create and maintain a quality culture that will move the organization towards world-class status
C412.3	understand the TQM concept and techniques for managing, controlling and improving quality at the workplace.
C412.4	know business excellence models and be able to assess organizations performance through data collection and analysis
C412.5	have a strategy to implement total quality practices at the workplace and effect savings on the input cost of an organization.

CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C412.1	-	-	-	-	-	1	--	2	2	1	3	1
C412.2	-	-	-	-	-	1	--	2	2	1	3	1
C412.3	-	-	-	-	-	1	--	2	2	1	3	1
C412.4	-	-	-	-	-	1	--	2	2	1	3	1
C412.5	-	-	-	-	-	1	2	2	2	2	3	1
C412	-	-	-	-	-	1	2	2	2	1.2	3	1

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C412.1	-	-	2
C412.2	-	-	2
C412.3	-	-	2
C412.4	-	-	2
C412.5	-	-	2
C412	-	-	2


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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
CO-PO, PSO MAPPING
R-2013

Year / Semester: IV Yr / VIII Sem
Course Name: Project (EC6811)

Course Code :C413

Course Outcomes

At the end of the course, the student will be able to

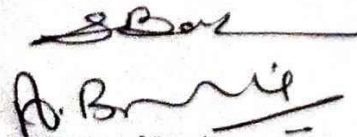
C413.1	identify challenging practical problems, solutions to cope up with present scenario of Electronics and Communication Engineering field.
C413.2	analyse the various methodologies and technologies and discuss with team for solving the problem
C413.3	apply technical knowledge and project management skills for solving the problem.
C413.4	design and develop hardware and/or software for their project specific problem.
C413.5	prepare the project reports and give proper explanation during the presentation and demonstration.


CO-PO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C413.1	2	2	1	2	2	2	2	1	1	1	2	2
C413.2	2	2	1	2	2	2	2	1	1	1	2	2
C413.3	2	2	1	2	2	2	2	1	1	1	2	2
C413.4	2	2	1	2	2	2	2	1	1	1	2	2
C413.5	2	2	1	2	2	2	2	1	1	1	2	2
C413	2	2	1	2	2	2	2	1	1	1	2	2

CO-PSO Mapping

CO	PSO1	PSO2	PSO3
C413.1	2	2	1
C413.2	2	2	1
C413.3	2	2	1
C413.4	2	2	1
C413.5	2	2	1
C413	2	2	1


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MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE
DEPARTMENT OF ECE
CO ATTAINMENT (BATCH 2014-2018)

Semester	Course Name	CourseCode	ACADEMIC YEAR	DIRECT ATTAINMENT										INDIRECT ATTAINMENT	OVERALL ATTAINMENT = (80% DIRECT + 20% INDIRECT)
				INTERNAL ASSESSMENT (IAT+ASSIGNMENT)			MCQ			UNIVERSITY RESULT			TOTAL ATTAINMENT = (20% IAT + 10% MCQ + 70% UR)	COURSE SURVEY	
				SET TARGET	%CROSSED TARGET	ATTAINMENT LEVEL	SET TARGET	%CROSSED TARGET	ATTAINMENT LEVEL	SET TARGET	%CROSSED TARGET	ATTAINMENT LEVEL		ATTAINMENT LEVEL	
I	TECHNICAL ENGLISH - I	C101	2014-2015	70	100	3	70	100	3	70	99.15	3	3	2.5	2.9
	MATHEMATICS - I	C102	2014-2015	70	100	3	70	100	3	70	61.86	2	2.3	2.2	2.28
	ENGINEERING PHYSICS - I	C103	2014-2015	70	100	3	70	100	3	70	86.44	3	3	2.3	2.86
	ENGINEERING CHEMISTRY - I	C104	2014-2015	70	100	3	70	100	3	70	92.31	3	3	2.4	2.88
	COMPUTER PROGRAMMING	C105	2014-2015	70	100	3	70	100	3	70	83.9	3	3	2.1	2.82
	ENGINEERING GRAPHICS	C106	2014-2015	70	100	3	70	100	3	70	56.78	1	1.6	2	1.68
	COMPUTER PRACTICES LABORATORY	C107	2014-2015	70	100	3	70	100	3	70	100	3	3	2.5	2.9
	ENGINEERING PRACTICES LABORATORY	C108	2014-2015	70	100	3	70	100	3	70	100	3	3	2.4	2.88
	PHYSICS AND CHEMISTRY LABORATORY - I	C109	2014-2015	70	100	3	70	100	3	70	100	3	3	2.5	2.9
II	TECHNICAL ENGLISH - II	C110	2014-2015	70	100	3	70	100	3	70	100	3	3	2.5	2.9
	MATHEMATICS - II	C111	2014-2015	70	100	3	70	100	3	70	95.69	3	3	2.4	2.88
	ENGINEERING PHYSICS - II	C112	2014-2015	70	100	3	70	100	3	70	70.94	3	3	2.2	2.84
	ENGINEERING CHEMISTRY - II	C113	2014-2015	70	100	3	70	100	3	70	94.87	3	3	2.1	2.82
	ELECTRONIC DEVICES	C114	2014-2015	70	100	3	70	100	3	70	74.36	3	3	2.2	2.84
	CIRCUIT THEORY	C115	2014-2015	70	100	3	70	100	3	70	46.15	0	0.9	2.1	1.14
	PHYSICS AND CHEMISTRY LABORATORY - II	C116	2014-2015	70	100	3	70	100	3	70	70.69	3	3	2.2	2.84
	CIRCUITS AND DEVICES LABORATORY	C117	2014-2015	70	100	3	70	100	3	70	100	3	3	2.4	2.88
	TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS	C201	2015-2016	70	100	3	70	100	3	70	100	3	3	2.5	2.9
III	ELECTRICAL ENGINEERING AND INSTRUMENTATION	C202	2015-2016	70	100	3	70	100	3	70	56.72	1	1.6	2.1	1.7
	OBJECT ORIENTED PROGRAMMING AND DATA STRUCTURES	C203	2015-2016	70	100	3	70	100	3	70	60.45	2	2.3	2.2	2.28
	DIGITAL ELECTRONICS	C204	2015-2016	70	100	3	70	100	3	70	69.4	2	2.3	2.1	2.26
				70	100	3	70	100	3	70	58.96	1	1.6	2.3	1.74

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IV	SIGNALS AND SYSTEMS	C205	2015-2016	70	100	3	70	100	3	70	63.16	2	2.3	2.2	2.28
	ELECTRONIC CIRCUITS-I	C206	2015-2016	70	100	3	70	100	3	70	42.86	0	0.9	2.1	2.16
	ANALOG AND DIGITAL CIRCUITS LABORATORY	C207	2015-2016	70	100	3	70	100	3	70	100	3	3	2.5	2.9
	DOOPS AND DATA STRUCTURES LABORATORY	C208	2015-2016	70	100	3	70	100	3	70	100	3	3	2.4	2.88
	PROBABILITY AND RANDOM PROCESSES	C209	2015-2016	70	100	3	70	100	3	70	60.15	2	2.3	2.3	2.3
	ELECTRONIC CIRCUITS II	C210	2015-2016	70	100	3	70	100	3	70	52.99	1	1.6	2.1	1.7
	COMMUNICATION THEORY	C211	2015-2016	70	100	3	70	100	3	70	72.93	3	3	2.3	2.88
	ELECTROMAGNETIC FIELDS	C212	2015-2016	70	100	3	70	100	3	70	66.92	2	2.3	2.2	2.28
	LINEAR INTEGRATED CIRCUITS	C213	2015-2016	70	100	3	70	100	3	70	65.41	2	2.3	2.1	2.26
	CONTROL SYSTEM ENGINEERING	C214	2015-2016	70	100	3	70	100	3	70	76.87	3	3	2.5	2.9
	CIRCUIT AND SIMULATION INTEGRATED LABORATORY	C215	2015-2016	70	100	3	70	100	3	70	100	3	3	2.4	2.88
	LINEAR INTEGRATED CIRCUIT LABORATORY	C216	2015-2016	70	100	3	70	100	3	70	100	3	3	2.4	2.88
	ELECTRICAL ENGINEERING AND CONTROL SYSTEM LABORATORY	C217	2015-2016	70	100	3	70	100	3	70	99.26	3	3	2.5	2.9
	DIGITAL COMMUNICATION	C301	2016-2017	70	100	3	70	100	3	70	59.7	1	1.6	2.3	1.74
	PRINCIPLES OF DIGITAL SIGNAL PROCESSING	C302	2016-2017	70	100	3	70	100	3	70	54.48	1	1.6	2.1	1.7
V	TRANSMISSION LINES AND WAVE GUIDES	C303	2016-2017	70	100	3	70	100	3	70	55.22	1	1.6	2	1.68
	ENVIRONMENTAL SCIENCE AND ENGINEERING	C304	2016-2017	70	100	3	70	100	3	70	58.96	1	1.6	2.1	1.7
	MICROPROCESSORS AND MICROCONTROLLERS	C305	2016-2017	70	100	3	70	100	3	70	59.7	1	1.6	2	1.68
	DIGITAL SIGNAL PROCESSING LAB	C306	2016-2017	70	100	3	70	100	3	70	99.25	3	3	2.4	2.88
	COMMUNICATION SYSTEM LAB	C307	2016-2017	70	100	3	70	100	3	70	100	3	3	2.5	2.9
	MICROPROCESSORS AND MICROCONTROLLERS LAB	C308	2016-2017	70	100	3	70	100	3	70	100	3	3	2.5	2.9
	PRINCIPLES OF MANAGEMENT	C309	2016-2017	70	100	3	70	100	3	70	78.2	3	3	2.2	2.84
	COMPUTER ARCHITECTURE	C310	2016-2017	70	100	3	70	100	3	70	59.4	1	1.6	2.1	1.7
VI	COMPUTER NETWORKS	C311	2016-2017	70	100	3	70	100	3	70	46.62	0	0.9	2	1.12
	VLSI DESIGN	C312	2016-2017	70	100	3	70	100	3	70	53.03	1	1.6	2.1	1.7
	ANTENNA AND WAVE PROPAGATION	C313	2016-2017	70	100	3	70	100	3	70	60.9	2	2.3	2.3	2.3
	MEDICAL ELECTRONICS	C314A	2016-2017	70	100	3	70	100	3	70	63.44	2	2.3	2.2	2.28
	ROBOTICS AND AUTOMATION	C314B	2016-2017	70	100	3	70	100	3	70	46.15	0	0.9	2	1.12
	COMPUTER NETWORKS LABORATORY	C315	2016-2017	70	100	3	70	100	3	70	100	3	3	2.3	2.86
	VLSI DESIGN LABORATORY	C316	2016-2017	70	100	3	70	100	3	70	100	3	3	2.4	2.88

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	COMMUNICATION AND SOFT SKILLS - LABORATORY BASED	C317	2016-2017	70	100	3	70	100	3	70	100	3	3	2.5	2.9
VII	RF & MICROWAVE ENGINEERING	C401	2017-2018	70	100	3	70	100	3	70	75.19	3	3	2.2	2.84
	OPTICAL COMMUNICATION AND NETWORKS	C402	2017-2018	70	100	3	70	100	3	70	72.18	3	3	2.1	2.82
	EMBEDDED AND REAL TIME SYSTEMS	C403	2017-2018	70	100	3	70	100	3	70	46.62	0	0.9	2	1.12
	DIGITAL IMAGE PROCESSING	C404A	2017-2018	70	100	3	70	100	3	70	90.79	3	3	2.5	2.9
	SATELLITE COMMUNICATION	C404B	2017-2018	70	100	3	70	100	3	70	66.67	2	2.3	2.1	2.26
	SPEECH PROCESSING	C405A	2017-2018	70	100	3	70	100	3	70	97.44	3	3	2.4	2.88
	ELECTROMAGNETIC INTERFERENCE & COMPATIBILITY	C404B	2017-2018	70	100	3	70	100	3	70	86.17	3	3	2.3	2.86
	OPTO ELECTRONIC DEVICES	C406	2017-2018	70	100	3	70	100	3	70	78.2	3	3	2.5	2.9
	EMBEDDED LABORATORY	C407	2017-2018	70	100	3	70	100	3	70	100	3	3	2.3	2.86
	OPTICAL & MICROWAVE LAB	C408	2017-2018	70	100	3	70	100	3	70	100	3	3	2.4	2.88
VIII	WIRELESS COMMUNICATION	C409	2017-2018	70	100	3	70	100	3	70	80.45	3	3	2.2	2.84
	WIRELESS NETWORKS	C410	2017-2018	70	100	3	70	100	3	70	68.18	2	2.3	2.1	2.26
	PROFESSIONAL ETHICS	C411	2017-2018	70	100	3	70	100	3	70	81.82	3	3	2.5	2.9
	TOTAL QUALITY MANAGEMENT	C412	2017-2018	70	100	3	70	100	3	70	82.58	3	3	2.3	2.86
	PROJECT	C413	2017-2018	70	100	3	70	100	3	70	99.25	3	3	2.5	2.9

SPS

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CHENNAI-600 024



MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

363, Arcot Road, Kodambakkam, Chennai – 24

Approved by AICTE & Affiliated to Anna University

email Id: principal@msec.edu.in

Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PO PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101			1.93		1.45			1.93		1.93	2.51	2.90	2.58	1.93	1.93
C102	2.28	2.28	1.98	1.98										0.76	
C103	1.91		0.95											0.95	
C104	2.16		2.16	2.30											
C105	2.26		2.82			0.94								1.88	
C106	1.12		0.56								1.68				
C107	2.90		1.61	2.26		1.93								1.93	
C108	1.92	0.67		1.92		1.92					1.92		0.96	1.28	
C109	2.90		1.61	1.29	1.45	1.93	1.93	2.90		2.90	1.61				
C110			1.92		1.44			1.92		1.92	2.50	2.88	2.56	1.92	1.92
C111	2.84		2.84	2.46										0.95	
C112	1.88		0.94											0.94	
C113	2.27		2.13	2.27											
C114	1.14	1.60	0.61	0.38										1.14	0.61
C115	2.27		1.89	1.51	0.95	1.89								1.14	
C116	2.88				0.96	2.88	1.92	2.88		2.88	1.44				
C117	2.26		1.93	1.93						1.93				1.93	0.97
C201	1.70		1.70	1.70										0.57	
C202	1.52		1.37	1.27	1.01	1.90	1.14							0.76	
C203	2.26			2.07								1.51			0.75
C204	1.74	2.00	1.74	1.74	1.16									1.74	1.74
C205	2.28		2.28	1.37	1.98	0.76								2.28	2.28
C206	1.14	2.00	1.14	1.14	0.99	0.38								1.14	1.14
C207	2.90	1.80	2.90	2.90	1.93	2.90				1.93				2.90	2.90
C208	2.40		1.92	1.92		1.92						1.92			1.28
C209	2.30		1.99	1.99											
C210	1.70	3.00	1.70	1.47	1.02	0.57								1.70	1.70

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CHENNAI-600 024



MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

363, Arcot Road, Kodambakkam, Chennai – 24
Approved by AICTE & Affiliated to Anna University
email Id: principal@msec.edu.in
Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING PO PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C211	2.29	0.80	2.10	1.91	2.29										2.86
C212	1.22		1.01	0.76	0.76										0.76
C213	2.26	2.00	2.26	2.26	2.26									2.26	2.11
C214	2.90	2.00	1.93	1.93	1.74	1.93								2.32	2.18
C215	1.92		2.88	1.92		1.92								1.92	
C216	2.88	1.00	2.88	2.88	1.92	1.92				1.92				2.88	2.88
C217	1.16	0.40	2.18	2.66	1.93	1.93						1.93		2.26	0.97
C301	1.74	1.00	1.28	1.39	1.28									1.16	1.74
C302	1.70	2.00	1.70	1.70	1.70	1.70								1.70	1.70
C303	1.34	1.60	1.57	1.34	1.34	0.84								1.68	1.68
C304	1.02		1.02	0.79				1.25	1.25	0.57					
C305	1.68	3.00	1.46	1.46	1.46									1.68	1.68
C306	2.88		2.88	2.88	1.92	2.69								2.30	1.92
C307	1.93	1.33	1.93	2.66	0.97	2.90									1.93
C308	2.90	3.00	2.90	2.90	2.13	2.90								2.90	2.90
C309							1.89		1.89	1.89	1.89	2.21	0.95		
C310	1.13	1.00	0.57	1.36										1.70	0.57
C311	0.75		0.67	0.87	1.12	0.75								1.12	1.12
C312	1.47	2.60	1.47	1.59	1.70	1.59								1.70	1.70
C313	2.30	2.00	2.30	2.30	1.99	1.84								1.38	1.53
C314	2.28	3.00	1.52	2.28	1.52		1.52	0.76						2.28	2.28
	0.47	1.25	0.37	0.56	0.62	1.12		1.12	0.37					0.56	0.56
C315				2.86	2.86	2.38	1.91								1.91
C316	1.92	2.00	1.92	2.88	1.92	2.88				1.92	1.92	0.96		2.88	2.88
C317			0.97		1.93	2.90	1.93		0.97	2.58	2.42		1.93		1.93
C401	2.65	1.87	2.27	2.46	2.46	1.89								2.84	2.84
C402	2.82	3.00	2.82	1.65	0.94	1.88	1.88		0.94	1.88		1.88	1.88	2.07	2.07



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363, Arcot Road, Kodambakkam, Chennai – 24
Approved by AICTE & Affiliated to Anna University
email id: principal@msec.edu.in
Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING PO PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C403	0.75	1.67	0.37	0.75	0.65	0.93	0.37							1.12	0.50
C404	2.90	1.00	1.93	1.93	1.93	1.93								1.93	2.42
	2.26	1.00	1.51	1.81	1.70									1.51	2.26
C405	2.88	2.00	1.92	1.92	2.16									2.88	2.88
	2.86	1.00	1.43	1.53	2.86		1.91	2.38						2.86	2.86
C406	2.90	3.00	1.93	2.90	0.97	0.97								2.90	2.90
C407	2.86	3.00	2.86	1.91	1.91	2.86								2.86	2.86
C408	2.88	1.00	1.92	0.96	1.92		0.96	0.96	0.96	1.92		0.96		1.92	0.96
C409	2.84	3.00	2.84	2.84	2.84	1.89		0.95						2.84	2.84
C410	1.51	1.33	1.51	1.81	1.81									2.26	2.26
C411							1.93	2.26	2.90	1.93	0.97		2.71		
C412							0.95	1.91	1.91	1.91	1.14	2.86	0.95		
C413	1.93	0.67	1.93	0.97	1.93	1.93	1.93	1.93	0.97	0.97	0.97	1.93	1.93	1.93	1.93

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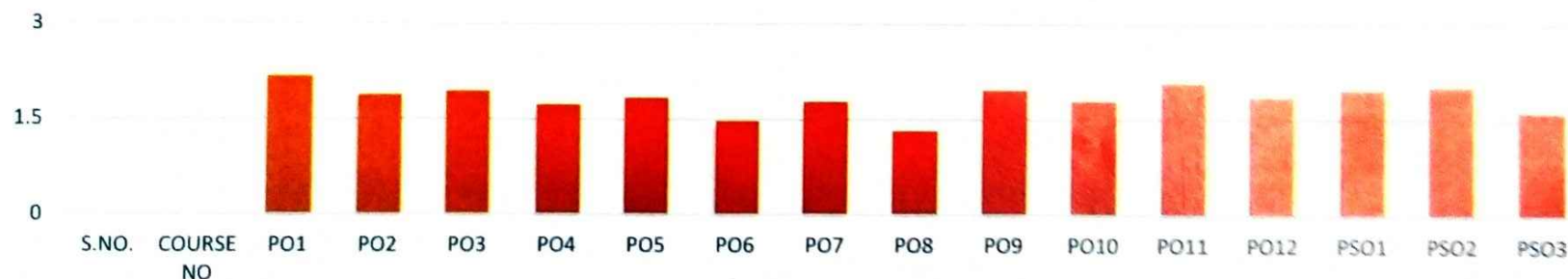
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COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct Attainment	2.09	1.11	1.79	1.85	1.64	1.84	1.58	1.78	1.35	1.94	1.75	1.99	1.83	1.82	1.88
80% Direct attainment	1.67	0.89	1.44	1.48	1.31	1.48	1.27	1.42	1.08	1.55	1.40	1.60	1.46	1.46	1.51
Indirect Attainment	2.50	2.20	2.30	2.10	1.80	1.00	1.80	1.20	2.10	2.00	2.30	2.00	2.50	2.50	2.10
20% Indirect Attainment	0.5	0.44	0.46	0.42	0.36	0.2	0.36	0.24	0.42	0.4	0.46	0.4	0.5	0.5	0.42
PO, PSO Attainment	2.17	1.33	1.9	1.9	1.67	1.68	1.63	1.66	1.5	1.95	1.86	2	1.96	1.96	1.93

PO, PSO attainment 2014-2018 batch (ECE)



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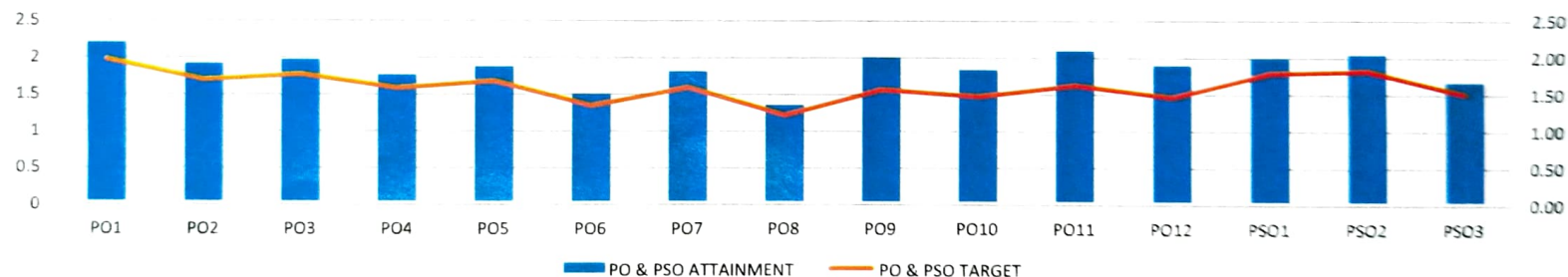
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PO, PSO ATTAINMENT AND TARGET (2014-2018 BATCH)

PO NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
PO AVG	2.59	2.22	2.32	2.07	2.19	1.75	2.08	1.58	2.04	1.92	2.12	1.90	2.34	2.38	1.96
PO, PSO Attainment	2.17	1.88	1.94	1.73	1.84	1.47	1.78	1.32	1.97	1.8	2.06	1.86	1.96	2.01	1.63
TARGET	1.94	1.66	1.74	1.55	1.65	1.31	1.56	1.18	1.53	1.44	1.59	1.43	1.75	1.79	1.47

ATTAINMENT VS TARGET



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Approved by AICTE & Affiliated to Anna University
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING INDIRECT PO & PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
A13	3	3	2	2	2	3	2	3	3	3	2	3	3	2	3
A14	3	2	3	2	2	2	2	3	3	3	2	3	3	2	3
A15	3	2	3	3	2	2	2	3	3	3	3	2	2	2	2
A16	3	3	2	3	3	2	3	2	3	3	2	3	3	2	3
A17	2	2	2	3	2	2	2	3	2	2	3	3	2	2	2
A18	2	2	3	3	2	2	2	3	3	2	2	2	3	2	2
A19	3	2	3	3	2	2	2	2	2	3	2	3	2	2	2
A20	2	2	2	3	2	2	3	2	2	3	2	3	2	2	3
A21	2	3	2	3	2	2	2	2	3	2	3	2	2	2	2
A22	3	3	3	2	2	2	2	2	2	3	2	2	3	3	2
A23	2	3	3	2	2	2	2	3	3	3	3	3	3	2	2
A24	3	3	2	3	2	3	3	2	2	2	2	2	2	3	3
A25	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2
A26	2	3	3	2	2	2	2	3	2	3	2	3	2	3	3
A27	3	2	3	3	2	2	3	3	2	2	3	3	2	2	2
A28	2	2	2	2	2	3	2	2	3	3	3	3	3	2	3
A29	2	3	2	3	2	2	3	2	3	3	2	3	3	2	3
A30	2	3	3	3	3	3	2	3	3	2	2	2	3	3	3

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363, Arcot Road, Kodambakkam, Chennai – 24
Approved by AICTE & Affiliated to Anna University
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Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING INDIRECT PO & PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
311514106049	3	2	2	2	1	2	2	2	2	3	2	2	2	3	2
311514106050	3	3	2	1	2	2	1	2	3	2	2	2	3	2	3
311514106051	2	3	3	3	2	1	2	2	3	2	2	3	3	2	2
311514106052	3	2	2	2	1	2	1	2	2	2	2	3	2	3	2
311514106053	2	2	3	2	2	1	2	2	2	2	2	3	2	3	2
311514106054	3	1	2	2	3	2	2	2	2	3	3	2	2	3	2
311514106056	2	3	2	2	1	2	2	3	2	2	2	1	3	3	2
311514106057	3	3	3	2	3	1	2	2	2	2	2	3	3	2	2
311514106058	2	3	2	2	2	1	3	3	3	3	2	2	2	2	2
311514106059	2	2	2	2	2	2	3	3	2	2	2	3	3	2	1
311514106060	2	2	2	3	3	1	3	3	2	2	2	3	2	2	2
311514106061	2	1	2	2	1	3	2	3	2	3	1	3	2	3	2
311514106062	3	2	2	2	2	1	2	3	2	3	3	3	3	2	2
311514106064	2	2	3	2	1	1	3	2	3	2	2	3	3	3	2
311514106065	3	3	3	2	2	1	2	2	3	3	3	3	3	2	2
311514106066	3	1	3	1	1	3	2	2	3	3	2	2	3	3	1
311514106067	3	2	3	2	2	1	2	2	1	2	3	2	2	2	2
311514106068	2	3	2	2	3	1	1	3	2	3	3	2	2	2	2
311514106069	3	2	2	2	2	3	1	2	2	2	1	3	2	2	2
311514106070	2	2	2	2	2	3	2	3	3	3	2	2	2	3	2
311514106071	2	2	2	2	3	1	2	2	2	2	3	2	2	2	2
311514106072	2	2	2	2	3	2	2	3	2	2	2	2	3	2	2
311514106073	2	2	3	1	1	3	2	3	2	3	2	2	2	2	2
311514106074	2	2	3	2	1	3	2	3	2	2	2	2	2	3	2

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363, ARCOT ROAD, KODAMBAKKAM,
CHENNAI-600 024



MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

363, Arcot Road, Kodambakkam, Chennai – 24
 Approved by AICTE & Affiliated to Anna University
 email Id: principal@msec.edu.in
 Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING INDIRECT PO & PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
EXIT SURVEY															
311514106001	3	2	2	1	2	2	2	3	2	2	2	2	3	3	2
311514106002	2	1	2	2	2	2	2	3	3	2	2	3	2	3	2
311514106003	3	2	2	2	2	1	2	3	1	2	2	2	3	3	2
311514106004	2	2	2	2	2	2	1	3	3	3	3	2	3	2	2
311514106005	2	2	3	2	2	2	2	2	3	1	2	2	3	2	2
311514106006	2	1	2	2	2	2	2	2	2	2	3	2	3	2	1
311514106007	2	2	2	2	2	2	2	3	3	2	3	2	2	2	2
311514106008	3	3	2	1	2	3	2	2	2	1	2	2	3	2	2
311514106009	3	2	3	1	1	2	3	2	2	3	2	2	3	3	1
311514106010	3	2	2	1	1	3	2	3	3	1	2	2	2	2	2
311514106011	3	2	2	2	2	2	2	3	2	2	3	3	3	2	1
311514106012	2	2	3	2	1	3	2	3	2	3	2	2	2	2	2
311514106013	2	1	3	1	3	3	2	3	3	2	1	3	3	3	3
311514106014	2	2	3	1	1	2	2	2	3	2	2	2	2	2	2
311514106015	2	2	3	2	2	2	1	2	2	3	2	2	2	2	2
311514106016	3	3	2	2	1	3	2	2	2	1	2	2	2	3	2
311514106017	3	2	2	2	2	2	2	2	2	2	2	3	2	3	2
311514106018	2	3	2	2	1	2	1	2	2	2	2	3	2	2	2
311514106019	2	3	2	2	2	1	2	3	3	2	2	2	2	3	2
311514106020	3	2	2	2	1	2	3	3	2	2	2	2	3	2	2
311514106021	2	2	3	1	3	2	2	2	3	2	2	2	3	3	2
311514106022	2	2	3	2	1	1	2	3	2	2	3	2	3	2	3
311514106023	2	3	2	2	2	1	2	2	3	2	2	3	2	3	2

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363, Arcot Road, Kodambakkam, Chennai – 24
 Approved by AICTE & Affiliated to Anna University
 email Id: principal@msec.edu.in
 Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING INDIRECT PO & PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
311514106024	3	3	2	3	2	2	2	3	3	2	2	2	2	3	2
311514106025	2	2	2	2	1	3	2	3	3	2	1	2	3	2	3
311514106026	3	2	3	2	2	2	2	3	2	2	3	3	3	3	2
311514106027	3	2	2	2	1	2	1	2	3	3	2	3	3	3	2
311514106028	2	2	3	3	2	2	1	3	2	2	2	2	2	2	3
311514106029	2	2	2	2	2	2	3	3	2	2	2	2	2	3	2
311514106030	2	1	3	2	2	2	2	2	2	3	2	2	2	2	2
311514106031	1	2	2	2	1	2	2	3	3	3	3	2	2	2	3
311514106032	2	2	3	3	2	2	1	2	3	3	2	2	3	3	2
311514106033	3	3	3	1	2	2	2	2	3	2	1	2	2	3	2
311514106034	2	2	3	2	1	2	2	2	2	3	2	3	3	3	2
311514106035	2	2	2	1	2	2	2	3	3	2	2	2	3	2	3
311514106036	2	3	2	1	1	3	3	3	3	2	2	2	2	2	2
311514106037	2	3	3	3	1	2	2	2	3	2	2	2	2	2	3
311514106038	3	2	3	2	2	1	2	2	3	3	2	2	2	3	2
311514106039	2	3	2	2	2	3	2	2	2	2	2	2	3	3	2
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311514106041	3	2	2	3	2	2	2	3	3	3	2	2	3	3	3
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311514106048	2	3	2	3	2	2	2	3	2	2	3	3	3	3	1

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MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

363, Arcot Road, Kodambakkam, Chennai – 24
Approved by AICTE & Affiliated to Anna University
email Id: principal@msec.edu.in
Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING INDIRECT PO & PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
311514106075	3	3	3	3	1	2	3	3	2	3	2	3	3	2	2
311514106076	2	1	2	2	2	2	1	2	3	3	2	3	3	3	2
311514106077	3	2	3	1	2	3	2	2	3	2	1	3	2	2	2
311514106078	2	2	2	2	2	3	2	2	2	2	2	1	2	3	2
311514106079	1	2	2	2	2	2	2	3	3	2	3	3	2	3	2
311514106080	2	1	2	2	1	2	1	2	3	3	2	3	2	3	2
311514106081	2	3	2	1	1	3	2	3	2	2	2	2	2	2	1
311514106082	2	2	3	2	2	3	3	3	2	2	2	2	3	2	2
311514106083	3	2	2	2	2	2	2	2	3	3	3	3	3	3	2
311514106084	1	2	3	2	3	2	1	2	2	2	3	3	3	3	2
311514106085	2	2	2	2	2	3	2	3	2	3	1	2	3	2	2
311514106086	2	2	2	2	2	2	2	3	2	3	3	2	2	2	2
311514106087	2	2	2	2	3	1	1	2	2	3	3	2	3	3	2
311514106088	2	3	2	2	2	2	2	2	2	3	2	2	3	3	1
311514106090	3	2	1	2	3	2	3	2	2	2	3	2	2	3	2
311514106093	2	2	2	2	2	2	2	3	2	2	2	2	3	3	2
311514106095	3	2	3	2	3	2	2	2	2	2	3	2	2	3	2
311514106096	2	2	2	2	1	2	2	3	2	3	2	3	3	3	1
311514106097	2	1	2	2	2	2	1	2	3	2	2	3	3	3	2
311514106098	2	3	2	2	2	2	1	3	3	2	2	2	3	3	2
311514106099	2	3	3	1	2	2	2	2	3	3	2	3	2	2	1
311514106100	3	2	2	2	3	2	2	3	3	2	2	3	3	3	1
311514106101	3	3	3	2	2	2	2	2	3	2	2	3	3	3	1
311514106102	2	3	2	2	2	2	2	3	2	3	3	2	2	2	3632

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CHENNAI-600 024

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MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

363, Arcot Road, Kodambakkam, Chennai – 24

Approved by AICTE & Affiliated to Anna University

email id: principal@msec.edu.in

Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

INDIRECT PO & PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
311514106103	3	2	2	2	2	2	2	3	2	2	2	2	2	2	2
311514106104	3	3	3	2	2	2	2	3	2	3	2	3	2	3	2
311514106105	2	3	3	3	2	2	1	3	3	2	3	2	2	2	2
311514106106	2	3	2	2	2	2	2	3	2	2	3	2	3	2	2
311514106107	2	2	2	2	1	2	2	2	2	2	2	2	3	2	2
311514106108	2	1	3	1	2	1	2	2	2	3	3	2	2	3	2
311514106109	3	3	3	2	2	1	2	3	2	3	2	2	2	3	2
311514106110	2	3	2	1	2	1	2	3	3	3	3	3	2	2	2
311514106111	2	1	3	2	3	2	1	3	2	2	3	2	3	2	2
311514106112	2	3	2	2	2	1	2	2	2	2	3	3	2	2	2
311514106113	2	2	2	1	1	2	2	3	2	2	2	3	3	3	2
311514106114	2	1	3	2	2	1	2	3	2	3	2	1	2	2	2
311514106115	2	2	1	3	2	2	2	2	2	3	3	2	3	3	1
311514106116	2	3	1	3	3	2	3	2	2	3	3	3	3	3	2
311514106117	2	1	2	2	3	2	2	2	2	2	3	3	3	2	1
311514106118	2	3	3	1	2	1	2	3	2	2	3	2	2	2	2
311514106119	2	3	2	2	2	1	2	3	3	3	2	3	2	2	2
311514106301	2	3	1	2	2	2	1	3	3	2	3	3	2	2	2
311514106302	2	2	2	3	2	2	2	2	3	2	1	2	2	2	2
311514106303	3	2	3	2	2	1	1	2	3	3	2	2	2	2	2
311514106304	3	3	2	2	1	1	2	3	2	3	2	2	3	2	2
311514106305	2	1	2	2	2	2	2	2	1	3	3	3	2	2	2
311514106306	2	2	2	2	1	2	1	2	2	3	2	3	3	2	2
311514106307	2	2	2	3	2	2	1	2	3	2	2	2	3	2	2

PRINCIPAL
MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE
363, ARCOT ROAD, KODAMBAKKAM,
CHENNAI-600 024



MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

363, Arcot Road, Kodambakkam, Chennai – 24

Approved by AICTE & Affiliated to Anna University

email Id: principal@msec.edu.in

Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

INDIRECT PO & PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
311514106308	2	2	2	3	2	2	2	2	3	2	2	3	3	2	3
311514106309	2	3	2	1	2	2	2	3	2	2	2	3	3	3	2
311514106310	2	3	2	2	2	2	1	3	2	3	2	2	3	2	3
311514106311	2	2	2	3	2	2	2	2	2	1	2	2	3	1	3
311514106312	2	2	2	2	2	2	1	2	2	2	3	2	3	3	3
311514106313	2	2	2	2	1	2	2	3	3	2	2	3	3	3	2
311514106314	2	1	3	3	2	2	2	2	2	2	2	3	2	2	2
311514106315	2	2	3	3	2	2	3	2	2	3	2	2	2	3	2
311514106316	3	2	3	1	2	2	2	2	1	2	3	2	3	3	2
311514106317	2	2	2	2	2	2	1	2	2	3	2	2	3	3	2
311514106701	2	1	2	2	2	2	1	3	2	2	2	3	2	2	2

ALUMNI SURVEY

A1	2	2	2	2	2	2	2	2	3	3	2	2	2	3	3
A2	3	2	2	3	2	2	2	3	3	3	2	2	2	3	3
A3	3	2	3	3	2	2	2	3	3	2	2	3	3	3	3
A4	2	3	3	3	2	3	3	3	3	2	2	2	3	3	2
A5	2	3	3	3	2	2	2	2	2	3	3	3	2	3	3
A6	2	2	2	2	2	3	2	2	2	3	3	2	2	2	3
A7	2	2	3	3	2	2	3	3	2	3	3	3	2	2	3
A8	3	2	3	3	2	2	3	3	2	3	3	3	2	2	2
A9	3	2	2	3	2	3	3	2	3	3	3	3	3	2	3
A10	2	3	2	3	2	2	3	2	3	3	2	3	3	2	3
A11	2	2	3	3	3	3	2	3	3	3	2	2	3	2	3
A12	2	2	3	2	2	2	3	2	3	3	2	3	2	2	3

Principal

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MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

363, ARCO ROAD, KODAMBAKKAM,

CHENNAI-600 024



MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

363, Arcot Road, Kodambakkam, Chennai – 24
 Approved by AICTE & Affiliated to Anna University
 email Id: principal@msec.edu.in
 Website : www.msec.edu.in

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING INDIRECT PO & PSO ATTAINMENT (2014-2018 BATCH)

COURSE NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
AVERAGE OF EXIT SURVEY	2.28	2.15	2.32	1.98	1.86	1.95	1.92	2.5	2.35	2.32	2.21	2.35	2.51	2.48	1.98
AVERAGE OF ALUMNI SURVEY	2.4	2.4	2.53	2.67	2.1	2.27	2.37	2.5	2.6	2.73	2.4	2.6	2.47	2.37	2.63
70% OF AVERAGE OF EXIT SURVEY	1.60	1.51	1.62	1.39	1.30	1.37	1.34	1.75	1.65	1.62	1.55	1.65	1.76	1.74	1.39
30 % AVERAGE OF ALUMNI SURVEY	0.72	0.72	0.76	0.80	0.63	0.68	0.71	0.75	0.78	0.82	0.72	0.78	0.74	0.71	0.79
Indirect PO Attainment	2.32	2.23	2.38	2.19	1.93	2.05	2.06	2.50	2.43	2.44	2.27	2.43	2.50	2.45	2.18

Indirect PO Attainment (2014-2018 batch)



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 363, ARCOT ROAD, KODAMBAKKAM,
 CHENNAI-600 024



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(Managed by I.I.E.T Society)

363, Arcot Road, Kodambakkam, Chennai - 24

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STUDENT EXIT SURVEY

STUDENT NAME	REG NO	BRANCH	BATCH
DHARANI-I	311514106013	ECE	2014-2018

Please indicate your feedback (✓) to know the Outcomes obtained from this program using the following scale:

3- Substantial

2-Medium

1-Low

At the end of the program, I was able to

Program Outcome			
	3	2	1
Apply the knowledge of engineering mathematics, basic sciences, engineering fundamentals and engineering specialization to the solution of complex information science and engineering problems.		✓	
Identify, formulate, review research literature, and analyse complex engineering problems of information and engineering reaching substantiated conclusions using first principles of engineering mathematics and engineering sciences.			✓
Design solutions for complex Information Science problems and design system components or processes of Information Science and Engineering that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.	✓		
Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in Information Science and Engineering.			✓
Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations in Information Science and Engineering.	✓		
Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice in Information Science and Engineering.	✓		
Understand the impact of the professional engineering solutions in Information Science and Engineering in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.		✓	
Apply ethical principles and commit to professional ethics and responsibilities and norms of the Information Science and Engineering practice.	✓		
Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.	✓		
Communicate effectively on complex Information Science engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.		✓	
Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.			✓
Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.	✓		
Program Specific Outcome			
	3	2	1
Demonstrate principles of basic electronic circuits, digital electronics, microprocessor and signal processing.	✓		
Design systems for applications in the areas of communication, networking and embedded systems.	✓		
Design low cost, quality, energy efficient and eco-friendly products.	✓		

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Signature of Student



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STUDENT EXIT SURVEY

STUDENT NAME	REG NO	BRANCH	BATCH
IRENE ROY JORD	311514106028	ECE	2014 - 2018

Please indicate your feedback (✓) to know the Outcomes obtained from this program using the following scale:

3- Substantial

2-Medium

1-Low

At the end of the program, I was able to

Program Outcome	3	2	1
Apply the knowledge of engineering mathematics, basic sciences, engineering fundamentals and engineering specialization to the solution of complex information science and engineering problems.		✓	
Identify, formulate, review research literature, and analyse complex engineering problems of information and engineering reaching substantiated conclusions using first principles of engineering mathematics and engineering sciences.		✓	
Design solutions for complex Information Science problems and design system components or processes of Information Science and Engineering that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.	✓		
Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in Information Science and Engineering.	✓		
Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations in Information Science and Engineering.		✓	
Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice in Information Science and Engineering.		✓	
Understand the impact of the professional engineering solutions in Information Science and Engineering in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.			✓
Apply ethical principles and commit to professional ethics and responsibilities and norms of the Information Science and Engineering practice.	✓		
Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.		✓	
Communicate effectively on complex Information Science engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.		✓	
Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.		✓	
Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.		✓	
Program Specific Outcome	3	2	1
Demonstrate principles of basic electronic circuits, digital electronics, microprocessor and signal processing.		✓	
Design systems for applications in the areas of communication, networking and embedded systems.		✓	
Design low cost, quality, energy efficient and eco-friendly products.	✓		

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363, ARCOT ROAD, KODAMBAKKAM,

CHENNAI-600 024

Signature of Student



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363, Arcot Road, Kodambakkam, Chennai - 24

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STUDENT EXIT SURVEY

STUDENT NAME:

Madhusree . PK

REG NO

311514106041

BRANCH

ECE

BATCH

2014 - 18

Please indicate your feedback (✓) to know the Outcomes obtained from this program using the following scale

3- Substantial

2-Medium

1-Low

At the end of the program, I was able to

Program Outcome

Apply the knowledge of engineering mathematics, basic sciences, engineering fundamentals and engineering specialization to the solution of complex information science and engineering problems.

3 2 1

Identify, formulate, review research literature, and analyse complex engineering problems of information and engineering reaching substantiated conclusions using first principles of engineering mathematics and engineering sciences.

✓

Design solutions for complex Information Science problems and design system components or processes of Information Science and Engineering that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

✓

Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in Information Science and Engineering.

✓

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations in Information Science and Engineering.

✓

Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice in Information Science and Engineering.

✓

Understand the impact of the professional engineering solutions in Information Science and Engineering in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

✓

Apply ethical principles and commit to professional ethics and responsibilities and norms of the Information Science and Engineering practice.

✓

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

✓

Communicate effectively on complex Information Science engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

✓

Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

✓

Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

✓

Program Specific Outcome

3 2 1

Demonstrate principles of basic electronic circuits, digital electronics, microprocessor and signal processing.

✓

Design systems for applications in the areas of communication, networking and embedded systems.

✓

Design low cost, quality, energy efficient and eco-friendly products.

✓

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363, ARCOT ROAD, KODAMBAKKAM,

CHENNAI-600 024



MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE
 (Managed by L.L.E.T. Society)
 363, Arcot Road, Kodambakkam, Chennai - 24
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ALUMNI SURVEY

NAME OF THE ALUMNI	BRANCH	BATCH
Hanish V	ECE	2009-2013

Please indicate your feedback () to know the Outcomes obtained from this program using the following scale

3-Substantial 2-Medium 1-Low

In my career perspective, I am able to

Program Outcome

	3	2	1
Apply the knowledge of engineering mathematics, basic sciences, engineering fundamentals and engineering specialization to the solution of complex information science and engineering problems			
Identify, formulate, review research literature, and analyse complex engineering problems of information and engineering reaching substantiated conclusions using first principles of engineering mathematics and engineering sciences.		✓	
Design solutions for complex Information Science problems and design system components or processes of Information Science and Engineering that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations		✓	
Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in Information Science and Engineering.		✓	
Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations in Information Science and Engineering.		✓	
Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice in Information Science and Engineering.		✓	
Understand the impact of the professional engineering solutions in Information Science and Engineering in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.		✓	
Apply ethical principles and commit to professional ethics and responsibilities and norms of the Information Science and Engineering practice.		✓	
Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.		✓	
Communicate effectively on complex Information Science engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.		✓	
Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.		✓	
Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.		✓	

Program Specific Outcome

	3	2	1
Demonstrate principles of basic electronic circuits, digital electronics, microprocessor and signal processing.			
Design systems for applications in the areas of communication, networking and embedded systems		✓	
Design low cost, quality, energy efficient and eco-friendly products.		✓	

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 363, ARCOT ROAD, KODAMBAKKAM,
 CHENNAI-600 024

MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE
 (Managed by I.I.E.T Society)
 363, Arcot Road, Kodambakkam, Chennai – 24
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ALUMNI SURVEY

NAME OF THE ALUMNI	BRANCH	BATCH
NIHARIKA R	ECE	2017-2019

please indicate your feedback () to know the Outcomes obtained from this program using the following scale:

3- Substantial

2-Medium

1-Low

In my career perspective, I am able to

Program Outcome	3	2	1
Apply the knowledge of engineering mathematics, basic sciences, engineering fundamentals and engineering specialization to the solution of complex information science and engineering problems.	✓		
Identify, formulate, review research literature, and analyse complex engineering problems of information and engineering reaching substantiated conclusions using first principles of engineering mathematics and engineering sciences.		✓	
Design solutions for complex Information Science problems and design system components or processes of Information Science and Engineering that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.	✓		
Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in Information Science and Engineering.	✓		
Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations in Information Science and Engineering.		✓	
Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice in Information Science and Engineering.		✓	
Understand the impact of the professional engineering solutions in Information Science and Engineering in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.		✓	
Apply ethical principles and commit to professional ethics and responsibilities and norms of the Information Science and Engineering practice.	✓		
Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.	✓		
Communicate effectively on complex Information Science engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.		✓	
Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.		✓	
Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.	✓		
Program Specific Outcome	3	2	1
Demonstrate principles of basic electronic circuits, digital electronics, microprocessor and signal processing.	✓		
Design systems for applications in the areas of communication, networking and embedded systems.	✓		
Design low cost, quality, energy efficient and eco-friendly products.	✓		

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 363, ARCOT ROAD, KODAMBAKKAM, CHENNAI-600 024