

JEPPIAAR INSTITUTE OF TECHNOLOGY

"Self Belief | Self Discipline | Self Respect"

REGULATION - 2017

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGIEEERING

SEMESTER-2 CO109

Subject Code & Name : HS8251 -Technical English

Department: ECE

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After successful completion of the cour	se, the students should be able to

Course Ou	utcome No.	Course Outcome												
CO	109.1	Reading technical texts and writing by the Pupils on area-specific texts effectively and effortlessly												
CO	109.2	Expand comprehensive skills to listen a lecture and talks in their area of specialization successfully.												
CO	109.3	Develop Formal and informal communication is easy to speak fluently and impeccably												
CO109.4 Write job application and resume, Bio-data and Profile with cover letter														
CO	109.5	Understand t	nerstand technical article, writing reports and minutes of meeting.											
CO & PO and P	SO Mapping	g												
			Program Outcomes											
Course No.	Level of CO	К3	К4	K4	К5	K3,K5,K6	A3	A2	A3	A3	A3	A3	A2	
		PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	
CO109.1	K2, A2	-	-	-	-	-	-	-	-	-	2	-	3	
CO109.2	K3, A2	-	-	-	-	-	-	-	-	2	2	-	3	
CO109.3	K3, A2	-	-	-	-	-	-	-	-	-	2	-	3	
CO109.4	A2	-	-	-	-	-	-	-	-	-	2	-	3	
CO109.5	A2	-	-	-	-	-	-	-	-	2	2	-	3	

Subject Code & Name : MA8251 - Engineering Mathematics - II

<u>CO110</u>

Department: ECE

CO & PO and PSO Mapping

After successful completion of the course, the students should be able to

Course Outcome No.	Course Outcome
CO110.1	Compute the Diagonalize symmetric matrices and similar matrices using Eigen values and Eigen vectors.
CO110.2	several variables. Also Compute line, surface and volume integral using Gauss divergence, Green's and
CO110.3	Discuss analytic functions in heat and fluid flow.
CO110.4	Extend the concept of contour integrals in evaluating Real integrals.
CO110.5	Discuss Laplace Transform methods to solve initial value problems for constant coefficient linear ODEs.

		Program Outcomes											
Course No.	Level of CO	К3	K4	K4	К5	K3,K5,K6	A3	A2	A3	A3	A3	A3	A2
		PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO110.1	K2	2	1	-	-	-	-	-	-	-	-	-	-
CO110.2	K2	2	1	-	-	-	-	-	-	-	-	-	-
CO110.3	K2	2	1	-	-	-	-	-	-	-	-	-	-
CO110.4	K2	2	1	-	-	-	-	-	-	-	-	-	-
CO110.5	K2	2	1	-	-	-	-	-	-	-	-	-	-

Subject Code & Name : PH8253-Physics for electronics Engineering

CO111 Department: ECE

After successful completion of the course, the students should be able to

Course Outcome No.	Course Outcome
CO111.1	Explain the classical and quantum electron theories, and energy band structures
CO111.2	Describe the basics of semiconductor physics and its applications in various devices
CO111.3	Explain the properties of magnetic and dielectric properties of materials
CO111.4	Classify the functioning of optical materials for optoelectronics
CO111.5	Describe the basics of quantum structures and their applications in spintronics and carbon electronics

								<u>CO 8</u>	PO and PSC	Mapping				
			Program Outcomes											
Course No.	Level of CO	К3	K4	K4	К5	K3,K5,K6	A3	A2	A3	A3	A3	A3	A2	
		PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	
C0111.1	K2	2	1	-	-	-	-	-	-	-	-	-	-	
CO111.2	K2	2	1	-	-	-	-	-	-	-	-	-	-	
C0111.3	K2	2	1	-	-	-	-	-	-	-	-	-	-	
CO111.4	K2	2	1	-	-	-	-	-	-	-	-	-	-	
CO111.5	K2	2	1	-	-	-	-	-	-	-	-	-	-	

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<u>CO112</u>

<u>CO113</u>

Department: ECE

Department: ECE

Subject Code & Name : BE8254 & Basic Electrical and Instrumentation Engineering

After successful completion of the course, the students should be able to

Anter su	ccessia compiction of the course, are students should be able to
Course Outcome No.	Course Outcome
CO112.1	Explain the operation of three phase electrical circuit and power measurement.
CO112.2	Explain the operation and circuit model of transformer.
CO112.3	Demonstrate the principle of operation, starting and speed control of D.C Machines
CO112.4	Describe the construction , principle of operation and performance of A.C machines
CO112.5	Explain the working principle of various measuring instruments and the classification of transducers
	CO & PO and PSO Mapping

	Program Outcomes											
Level of CO	КЗ	K4	K4	К5	K3,K5,K6	A3	A2	A3	A3	A3	A3	A2
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
K2	2	1	1	-	-	-	-	-	-	-	-	-
К3	3	2	2	1	-	-	-	-	-	-	-	-
K2	2	1	1	-	-	-	-	-	-	-	-	-
К3	3	2	2	1	-	-	-	-	-	-	-	-
K2	2	1	1	-	1	-	-	-	-	-	-	-
	Level of CO K2 K3 K2 K3 K3 K2	Kar K2 R3 K3 3 K2 2 K3 3 K2 3 K3 3 K2 2 K3 3 K2 2 K3 3	Keelelof CO K3 K4 PO-1 PO-2 K2 2 1 K3 3 2 K2 2 1 K3 3 2 K2 2 1 K3 3 2 K3 3 2 K3 3 2 K3 3 2	Keelelof CO K3 K4 K4 PO-1 PO-2 PO-3 K2 2 1 1 K3 3 2 2 K2 2 1 1 K3 3 2 2 K2 2 1 1 K3 3 2 2 K3 3 1 1 K3 3 2 2 K3 3 1 1	Keel of Column 2 K3 K4 K4 K5 PO-1 PO-2 PO-3 PO-4 K2 2 1 1 - K3 3 2 2 1 K2 2 1 1 - K2 3 2 2 1 K3 3 2 3 3	Keeled CO K3 K4 K5 K3,K5,K6 PO-1 PO-2 PO-3 PO-4 PO-5 K2 2 1 1 C PO-5 K3 3 2 2 1 C C K2 2 1 1 C C C K3 3 2 2 1 C C C C C C C C C C C C C C C C C C C C C C C C C C C C C </td <td>Image: First state state</td> <td>Pierrete Event Even</td> <td>Project Distribution: Level of Colspan="4">K4 K5 K3K5K6 A3 A2 A3 PO-1 PO-2 PO-3 PO-4 PO-5 PO-6 PO-7 PO-3 K2 2 PO-3 PO-4 PO-5 PO-6 PO-7 PO-7 K3 3 2 1 1 A A A K4 YA PO-3 PO-3 PO-4 PO-5 PO-6 PO-7 PO-8 K5 2 1 A PO-7 A A A K5 3 2 2 A A A A A K2 2 A A A A A A A A</td> <td>Proversima StructureLevel of Colspan="6">RAKAKSKAS,KSKASASASASPO-1PO-2PO-3PO-4PO-5PO-6PO-6PO-6PO-6PO-6RC2.01.0PO-3PO-5PO-6PO-6PO-6PO-6PO-6PO-6RC3.02.01.0PO-7PO-6PO-6PO-7PO-6PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7PO-7PO-7RC3.02.01.0PO-7PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.02.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.02.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.0<td>Proversional SystemLevel of Colspan="6">K4K4K5K3K5K6A3A2A3A3PO-1PO-2PO-3PO-4PO-5PO-6PO-7PO-9PO-10K2211CCCCCCCK33221CCCCCCCK33221CCCCCCCK3321CCCCCCCCK451CCCCCCCCC</td><td>IDENTIFYIDENTIFYLevel of DK4K5K3K5K6A3A2A3A3A3PO1PO2PO3PO3PO4PO4PO4PO3PO4PO4PO4RC1RC2R1R1R1R1R1R1R1R1R1R1R1RC3R2R1R1R1R1R1R1R1R1R1R1R1R1RC3R3R2R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1<th< td=""></th<></td></td>	Image: First state	Pierrete Event Even	Project Distribution: Level of Colspan="4">K4 K5 K3K5K6 A3 A2 A3 PO-1 PO-2 PO-3 PO-4 PO-5 PO-6 PO-7 PO-3 K2 2 PO-3 PO-4 PO-5 PO-6 PO-7 PO-7 K3 3 2 1 1 A A A K4 YA PO-3 PO-3 PO-4 PO-5 PO-6 PO-7 PO-8 K5 2 1 A PO-7 A A A K5 3 2 2 A A A A A K2 2 A A A A A A A A	Proversima StructureLevel of Colspan="6">RAKAKSKAS,KSKASASASASPO-1PO-2PO-3PO-4PO-5PO-6PO-6PO-6PO-6PO-6RC2.01.0PO-3PO-5PO-6PO-6PO-6PO-6PO-6PO-6RC3.02.01.0PO-7PO-6PO-6PO-7PO-6PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7PO-7PO-7RC3.02.01.0PO-7PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.01.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.02.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.02.0PO-7PO-7PO-7PO-7PO-7PO-7RC2.0 <td>Proversional SystemLevel of Colspan="6">K4K4K5K3K5K6A3A2A3A3PO-1PO-2PO-3PO-4PO-5PO-6PO-7PO-9PO-10K2211CCCCCCCK33221CCCCCCCK33221CCCCCCCK3321CCCCCCCCK451CCCCCCCCC</td> <td>IDENTIFYIDENTIFYLevel of DK4K5K3K5K6A3A2A3A3A3PO1PO2PO3PO3PO4PO4PO4PO3PO4PO4PO4RC1RC2R1R1R1R1R1R1R1R1R1R1R1RC3R2R1R1R1R1R1R1R1R1R1R1R1R1RC3R3R2R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1<th< td=""></th<></td>	Proversional SystemLevel of Colspan="6">K4K4K5K3K5K6A3A2A3A3PO-1PO-2PO-3PO-4PO-5PO-6PO-7PO-9PO-10K2211CCCCCCCK33221CCCCCCCK33221CCCCCCCK3321CCCCCCCCK451CCCCCCCCC	IDENTIFYIDENTIFYLevel of DK4K5K3K5K6A3A2A3A3A3PO1PO2PO3PO3PO4PO4PO4PO3PO4PO4PO4RC1RC2R1R1R1R1R1R1R1R1R1R1R1RC3R2R1R1R1R1R1R1R1R1R1R1R1R1RC3R3R2R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1R1 <th< td=""></th<>

Subject Code & Name : EC8251 & Circuit analysis

After successful completion of the course, the students should be able to

Course Outcome No.	Course Outcome
CO113.1	Develop the capacity to analyze electrical circuits using nodal analysis & network terminology.
CO113.2	Apply network theorem concepts to solve AC and DC circuits .
CO113.3	Calculate the response of the series and parallel resonance circuits.
CO113.4	Obtain the transient responds of the circuit
CO113.5	Understand the concepts of two port network in various parameters.

								<u>CO 8</u>	k PO and PSC) Mapping				
			Program Outcomes											
Course No.	Level of CO	КЗ	K4	K4	К5	K3,K5,K6	A3	A2	A3	A3	A3	A3	A2	
		PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	
CO113.1	К3	3	1	2	-	-	-	-	-	-	-	-	-	
CO113.2	К3	3	2	2	-	-	-	-	-	-	-	-	-	
CO113.3	K2	2	1	-	-	-	-	-	-	-	-	-	-	
CO113.4	К3	3	2	2	-	-	-	-	-	-	-	-	-	
CO113.5	К3	3	2	2	-	-	-	-	-	-	-	-	-	

CO114 Department: ECE

Subject Code & Name : EC8252 & Electronic devices

After successful completion of the course, the students should be able to

Course Outcome No.	Course Outcome
CO114.1	Study and Analyze the behavior of semiconductor devices.
CO114.2	Characterize the current flow of bipolar transistor in CB, CE, and CC configuration.
CO114.3	Illustrate biasing of transistors and FETs for amplifier applications.
C0114.4	Study and analyze the behavior of special semiconductor devices.
CO114.5	Discuss the operation of power and display devices.
	CO & PO and PSO Mapping

			Program Outcomes												
Course No.	Level of CO	КЗ	K4	К4	К5	K3,K5,K6	A3	A2	A3	A3	A3	A3	A2		
		PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12		
CO114.1	K2	2	1	-	-	-	-	-	-	-	-	-	-		
CO114.2	K2	2	2	-	-	-	-	-	-	-	-	-	-		
CO114.3	K2	2	1	-	-	-	-	-	-	-	-	-	-		
CO114.4	K2	2	1	-	-	-	-	-	-	-	-	-	-		
CO114.5	K2	2	1	-	-	-	-	-	-	-	-	-	-		

<u>CO115</u>

Department: ECE

Subject Code & Name : GE8261 Engineering Practices laboratory

After successful completion of the course, the students should be able to Course Outcome Course Outcome No. CO115.1 Identify Tools and Techniques used for Sheet Metal Fabrication CO115.2 Use welding equipment to join the structures CO115.3 Demonstrate Plumbing requirements of domestic buildings. CO115.4 Apply the skills of basic electrical engineering for house wiring practice CO115.5 Measure various electrical quantities CO115.6 Explain the working of electronic components and its utilization CO115.7 Apply electronic principles to develop circuits for primitive application CO115.8 Exhibit ethical principles in engineering practices CO115.9 Perform task as an individual and / or team member to manage the task in time CO115.10 Express the Engineering activities with effective presentation and report. CO115.11 Interpret the findings with appropriate technological / research citation.

		CO & PO and PSO Mapping											
							Progra	m Outcomes					
Course No.	Level of CO	К3	K4	K4	К5	K3,K5,K6	A3	A2	A3	A3	A3	A3	A2
		PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO115.1	K1	1	-	1	-	1	-	-	-	-	-	-	-
CO115.2	К3	3	2	-	-	-	-	-	-	-	-	-	-
CO115.3	К3	3	2	-	-	-	-	-	-	-	-	-	-
CO115.4	К3	3	2	2	1	3	-	-	-	-	-	-	-
CO115.5	K2	3	2	2	1	3	-	-	-	-	-	-	-
CO115.6	К3	2	1		1	2	-	-	-	2	2	2	-
CO115.7	К3	3	2	2	1	3	-	-	-	3	3	3	-
CO115.8	A3	-	-	-	-	-	-	-	3	-	-	-	-
CO115.9	A3	-	-	-	-	-	-	-	-	3	-	3	-
CO115.10	A3	-	-	-	-	-	-	-	-	-	3	-	-
CO115.11	A2	-	-	-	-	-	-	-	-	-	-	-	3

Subject Code & Name : EC8261 Circuits and Devices Laboratory

<u>CO116</u> Department: ECE

CO & PO and PSO Mapping

After successful completion of the course, the students should be able to

Course Outcome No.	Course Outcome
CO116.1	Construct circuits by applying the theoretical knowledge gained in electron devices
CO116.2	Analyse the electrical characteristics of unipolar and bipolar devices with the constructed circuits
CO116.3	Observe and analyse thethyristor characteristics
CO116.4	Observe and analyse the operation of positive, negative and combinational clippers
CO116.5	Observe and analyse the operation of half wave rectifier, full wave rectifier with and without capacitive filters
CO116.6	Understand the measurement of frequency using CRO
CO116.7	Verify the outcomes of KCL, KVL, Thevenin, Norton & Superposition theorems.
CO116.8	Exhibit ethical principles in engineering practices
CO116.9	Perform task as an individual and / or team member to manage the task in time
CO116.10	Express the Engineering activities with effective presentation and report.
CO116.11	Interpret the findings with appropriate technological / research citation.

							Progra	am Outcomes					
Course No.	Level of CO	К3	K4	К4	К5	K3,K5,K6	A3	A2	A3	A3	A3	A3	A2
		PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO116.1	K2	2	1	1	-	-	-	-	-	-	-	-	-
CO116.2	К3	3	2	2	-	-	-	-	-	-	-	-	-
CO116.3	К3	3	2	2	-	-	-	-	-	-	-	-	-
CO116.4	К3	3	2	2	-	-	-	-	-	-	-	-	-
CO116.5	К3	3	2	2	-	-	-	-	-	-	-	-	-
CO116.6	K2	2	1	1	-	-	-	-	-	-	-	-	-
CO116.7	K2	2	1	1	-	-	-	-	-	-	-	-	-
CO116.8	A3	-	-	-	-	-	-	-	3	-	-	-	-
CO116.9	A3	-	-	-	-	-	-	-	-	3	-	3	-
CO116.10	A3	-	-	-	-	-	-	-	-	-	3	-	-

C0116.11 A2 3														
	CO116.11	A2	-	-	-	-	-	-	-	-	-	-	-	3



Year/Sem: I/2

Highest Cognitive Level
K2, A2
K3, A2
K3, A2
A2
A2

Program Specific Outcomes						
PSO-1	PSO-2					
-	-					
-	-					
-	-					
-	-					
-	-					

Year/Sem: I/2

Highest Cognitive Level
K2

Program Specific Outcomes						
PSO-2						
-						
-						
-						
-						
-						

Year/Sem: I/2

Highest Cognitive Level
К2
К2
К2
K2
K2

Program Specific Outcomes					
PSO-1	PSO-2				
-	-				
-	-				
-	-				
-	-				
-	-				

Year/Sem: I/2

Highest Cognitive Level
K2
К3
K2
К3
K2

Program Specific Outcomes						
PSO-1	PSO-2					
1	-					
1	-					
1	-					
1	-					
1	-					
	•					

Year/Sem: I/2

Highest Cognitive Level
К3
К3
К2
К3
К3

Program Specific Outcomes	
PSO-1	PSO-2
1	-
1	-
1	-
1	-
1	-

Year/Sem: I/2

Highest Cognitive Level
К2
К2
К2
К2
K2

Program Specific Outcomes	
PSO-1	PSO-2
1	-
2	-
1	-
-	-
-	-

Year/Sem: I/2

Highest Cognitive Level
K1
К3
К3
К3
K2
К3
К3
A3
A3
A3
A2

Program Specific Outcomes	
PSO-1	PSO-2
-	-
-	-
-	-
-	-
-	-
1	-
1	-
-	-
-	-
-	-
-	-

Year/Sem: I/2

Highest Cognitive Level
К2
К3
КЗ
К3
К3
К2
К2
A3
A3
A3
A2

Program Specific Outcomes	
PSO-1	PSO-2
1	-
2	-
2	-
2	-
2	-
1	-
1	-
-	-
-	-
-	-

-	-