Anna University Chennai - R2017

Course Outcomes (COs)

Course Name with subject code: Linear Algebra and Partial Differential Equations /MA8352

Course	Course Outcomes									
Code	Upon completion of the course, the students will be able to:									
C201.1	Explain the fundamental concepts of advanced algebra and their role in modern mathematics and applied contexts.									
C201.2	Demonstrate accurate and efficient use of advanced algebraic techniques.									
C201.3	Demonstrate their mastery by solving non - trivial problems related to the concepts and by proving simple theorems about the statements proven by the text.									
C201.4	Able to solve various types of partial differential equations.									
C201.5	Able to solve engineering problems using Fourier series.									
C201.6	Develop transform and differential equations and its applications.									

CO - PO Map

COs	P01	P02	P03	P04	PO5	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C201.1	2	2	-	-	2	2	-	-	-	-	1	1	-	2
C201.2	3	3	1	1	2	2	1	3	1	1	-	2	1	2
C201.3	3	2	2	2	2	2	-	-	-	1	-	1	1	3
C201.4	3	3	2	2	2	2	-	-	-	-	-	2	1	2
C201.5	3	2	1	1	2	2	-	-	-	1	1	3	1	1
C201.6	3	3	2	2	3	3	1	-	1	1	-	2	2	2
C201	3	3	2	2	2	2	-	1	-	1	-	2	1	2





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Fundamentals of Data Structures In C / EC8393

Course	Course Outcomes
Code	Upon completion of the course, the students will be able to:
C202.1	Implement Linear and Non linear data structure operations using C
C202.2	Suggest appropriate linear/Non linear data structure for any given data set
C202.3	Apply hashing concepts for a given problem
C202.4	Modify or suggest new data structure for an application
C202.5	Appropriately choose the sorting algorithm for an application
C202.6	Apply different techniques in given applications of trees.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C202.1	2	3	3	2	2	-	-	2	-	-	-	3	3	3
C202.2	3	2	3	1	2	-	-	3	-	-	-	-	3	3
C202.3	2	2	3	2	3	1	-	2	-	-	-	3	3	1
C202.4	3	3	2	2	-	1	1	-	-	2	-	3	-	3
C202.5	3	3	2	2	3	1	-	3	-	2	-	3	-	-
C202.6	3	2	3	1	-	-	1	-	-	-	-	3	-	-
C202	3	3	3	2	2	1	-	2	-	1	-	3	2	2





Anna University Chennai – R2017 Course Outcomes (COs)

Subject code: EC8351

Subject Name: Electronic Circuits I

Course	Course Outcomes
Code	Upon completion of the course, the students will be able to:
C203.1	Acquire knowledge of Working principles BJT and FET
C203.2	Acquire knowledge of characteristics and applications of BJT and FET
C203.3	Acquire knowledge of Frequency response characteristics of BJT and FET amplifiers
C203.4	Analyze the performance of small signal BJT and FET amplifiers
C203.5	Analyze the performance of single stage and multi stage amplifiers
C203.6	Apply the knowledge gained in the design of Electronic circuits

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C203.1	1	2	2	2	2	2	2	3	3	2	1	1	1	-
C203.2	1	2	2	2	2	2	2	3	3	2	1	1	1	-
C203.3	2	1	2	2	2	2	2	2	3	2	1	1	1	-
C203.4	2	1	2	2	2	2	2	1	2	2	1	1	1	-
C203.5	2	2	2	2	2	2	2	2	3	2	2	2	-	1
C203.6	1	1	1	1	1	1	1	2	3	1	1	2	-	-
C203	2	2	2	2	2	2	2	2	3	2	1	2	1	-





Anna University Chennai – R2017 Course Outcomes (COs)

Subject code: EC8352

Subject Name: Signals & Systems

Course	Course Outcomes
Code	Upon completion of the course, the students will be able to:
C204.1	To be able to determine if a given system is linear/causal/stable
C204.2	Capable of determining the frequency components present in a deterministic signal
C204.3	Capable of characterizing LTI systems in the time domain
C204.4	Capable of characterizing LTI systems in the frequency domain
C204.5	To be able to compute the output of an LTI system in the time domains
C204.6	To be able to compute the output of an LTI system in the frequency domains

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C204.1	3	3	3	3	2	2	2	1	-	2	2	-	2	2
C204.2	3	3	3	3	3	1	-	2	-	1	2	1	3	2
C204.3	3	3	3	3	2	1	2	2	1	2	-	3	2	3
C204.4	3	3	3	3	2	2	-	1	-	2	-	-	2	2
C204.5	2	3	3	3	2	2	1	2	1	2	1	3	2	1
C204.6	3	3	3	3	2	2	-	2	1	1	-	-	3	2
C204	2	2	2	1	1	1	-	-	-	-	1	2	1	-





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Digital Electronics/EC8392

Course	Course Outcomes
Code	Upon completion of the course, the students will be able to:
C205.1	Use digital electronics in the present contemporary world
C205.2	Design various combinational digital circuits using logic gates
C205.3	Do the analysis procedures for synchronous and asynchronous sequential circuits
C205.4	Do the design procedures for synchronous and asynchronous sequential circuits
C205.5	Use the semiconductor memories and related technology
C205.6	Use electronic circuits involved in the design of logic gates

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C205.1	3	3	3	-	2	2	3	2	-	1	-	2	1	1
C205.2	2	2	2	-	3	1	2	1	-	1	-	3	-	2
C205.3	3	3	3	-	3	1	3	2	-	-	-	3	1	2
C205.4	3	2	2	-	2	2	3	2	-	-	-	3	-	1
C205.5	2	3	2	-	3	1	1	1	-	1	-	2	1	2
C205.6	2	2	2	-	3	2	3	2	-	1	-	2	-	1
C205	3	3	3	-	3	2	2	2	-	1	-	3	2	2





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Control Systems Engineering /EC8391

Course	Course Outcomes
Code	Upon completion of the course, the students will be able to:
C206.1	Identify the various control system components and their representations.
C206.2	Analyze the various time domain parameters.
C206.3	Analysis the various frequency response plots and its system.
C206.4	Apply the concepts of various system stability criterions.
C206.5	Design various transfer functions of digital control system using state variable models.
C206.6	Explain the representation of state variable for CT and DT system.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C206.1	2	1	1	-	2	-	-	1	3	2	-	3	3	1
C206.2	3	2	2	2	2	1	-	3	3	1	-	2	2	1
C206.3	2	1	1	1	3	1	-	3	3	-	-	3	2	2
C206.4	3	1	2	2	2	1	1	1	2	2	-	3	-	2
C206.5	3	2	1	1	3	1	-	1	1	1	-	2	1	2
C206.6	2	1	1	2	3	-	1	-	3	-	-	2	-	1
C206	3	1	1	2	3	1	-	2	3	1	-	3	1	2





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Analog and Digital Circuits Laboratory /EC8361

Course	Course Outcomes
Code	On completion of this laboratory course, the student should be able to
C208.1	Design and Test BJT/JFET amplifiers, rectifiers, filters and regulated power supplies.
C208.2	Differentiate cascode and cascade amplifiers.
C208.3	Analyze the limitation in bandwidth of single stage and multi stage amplifier
C208.4	Measure CMRR in differential amplifier
C208.5	Simulate and analyze amplifier circuits using PSpice.
C208.6	Design and Test the digital logic circuits.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C208.1	2	1	1	-	2	-	-	1	3	2	-	3	3	1
C208.2	3	2	2	-	2	1	1	3	3	1	-	2	2	1
C208.3	2	1	1	1	3	1	-	3	3	-	-	3	2	2
C208.4	3	1	2	-	2	-	1	1	2	2	-	3	-	2
C208.5	3	2	1	1	3	1	-	1	1	1	-	2	1	2
C208.6	2	1	1	-	3	-	1	-	3	-	-	2	-	1
C208	3	1	1	-	3	-	-	2	3	1	-	3	1	2





Anna University Chennai - R2017

Course Outcomes (COs)

Course Name with subject code: Fundamentals of Data Structures in C Laboratory /EC8381

Course	Course Outcomes
Code	On completion of this laboratory course, the student should be able to
C207.1	Apply C programming language.
C207.2	Apply and Understand the different C programming concepts.
C207.3	Design different data structures methods
C207.4	Apply binary tree searching concept in data structure.
C207.5	Develop stack application and its types.
C207.6	Develop sorting, searching technique and its types.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C207.1	2	3	3	-	2	-	-	-	-	-	-	3	3	1
C207.2	3	2	3	-	3	2	-	3	-	-	-	-	3	-
C207.3	2	3	3	-	3	1	1	1	-	1	-	3	3	1
C207.4	3	2	2	-	3	2	1	-	-	2	-	3	2	1
C207.5	3	3	2	-	3	1	1	3	-	2	-	3	2	-
C207.6	3	2	3	-	2	-	1	-	-	-	-	3	2	-
C207	3	3	3	-	3	2	1	1	-	1	-	3	3	1





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Interpersonal Skills/Listening & Speaking /EC8361

Course	Course Outcomes
Code	At the end of the course Learners will be able to
C209.1	Listen and respond appropriately.
C209.2	Participate in group discussions
C209.3	Make effective presentations
C209.4	Participate confidently and appropriately in conversations both formal and informal
C209.5	To engage in specific academic speaking activities.
C209.6	Understands the academic studies with primary emphasis on speaking and listening skills.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C209.1	2	1	1	-	2	-	-	1	3	2	-	3	3	1
C209.2	3	2	2	-	2	-	2	3	3	1	1	2	2	1
C209.3	2	1	1	1	3	1	-	3	3	-	2	3	2	2
C209.4	3	1	2	2	2	-	1	1	2	2	2	3	2	2
C209.5	3	2	1	1	3	1	-	1	1	1	1	2	1	2
C209.6	2	1	1	1	3	-	1	-	3	-	-	2	2	1
C209	3	1	1	1	3	-	1	2	3	1	1	3	2	2





Anna University Chennai - R2017 Course Outcomes (COs)

Course Name with subject code: Probability & Random Processes/MA8451

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C210.1	Understand the fundamental knowledge of the concepts of probability and have knowledge of standard distributions which can describe real life phenomenon.
C210.2	Understand the basic concepts of one and two dimensional random variables and apply in engineering applications.
C210.3	Apply the concept random processes in engineering disciplines.
C210.4	Understand and apply the concept of correlation and spectral densities.
C210.5	Build more knowledge in basic concept of Distributions.
C210.6	Make use of Spectral Density in modern scientific computing.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	PO10	P011	PO12	PSO1	PSO2
C210.1	2	1	3	1	2	-	-	-	-	-	-	3	3	1
C210.2	3	2	3	3	-	-	-	3	-	-	-	-	3	-
C210.3	2	-	3	3	3	1	1	1	-	-	-	3	2	1
C210.4	3	-	2	-	-	-	-	-	-	2	-	3	2	1
C210.5	3	3	2	2	-	1	-	3	-	2	-	3	-	-
C210.6	3	-	3	-	-	-	1	-	-	-	-	3	-	-
C210	3	1	3	2	1	-	-	1	-	1	-	3	2	1





Anna University Chennai - R2017 Course Outcomes (COs)

Course Name with subject code: Electronic Circuits -II/ EC8452

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C211.1	Analyze different types of amplifier and design feedback amplifier
C211.2	Design BJT amplifier
C211.3	Design and analyze LC and RC oscillators
C211.4	Analyze transistorized amplifier and design tuned amplifiers
C211.5	Design wave shaping circuits, multivibrators.
C211.6	Design power amplifier and DC convertors.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C211.1	3	3	3	3	2	-	-	2	ı	2	2	-	3	2
C211.2	3	2	3	2	2	2	-	2	2	1	1	3	2	2
C211.3	2	3	2	2	3	1	2	1	-	3	-	-	2	3
C211.4	3	2	3	1	2	-	-	3	2	2	-	-	2	2
C211.5	3	1	2	2	3	-	2	2	-	2	-	3	1	1
C211.6	2	3	-	2	2	-	-	2	-	2	-	-	2	2
C211	3	3	3	2	2	2	2	2	2	2	2	3	2	2





Anna University Chennai - R2017 Course Outcomes (COs)

Course Name with subject code: Communication Theory/EC8491

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C212.1	Design AM communication systems
C212.2	Design Angle modulated communication systems
C212.3	Apply the concepts of Random Process to the design of Communication systems
C212.4	Analyze the noise performance of AM and FM systems
C212.5	Gain knowledge in sampling and quantization
C212.6	Design and analyze the concepts of error coding

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C212.1	2	3	3	1	2	3	1	1	-	1	-	3	3	3
C212.2	3	2	3	3	1	2	1	3	1	1	1	-	3	2
C212.3	2	3	2	3	3	3	3	2	-	1	-	3	3	3
C212.4	3	2	2	-	1	2	1	1	1	3	1	3	2	3
C212.5	3	3	2	2	ı	3	1	3	ı	2	ı	3	2	2
C212.6	3	2	2	-	-	2	2	-	-	1	-	3	2	2
C212	3	3	2	2	1	3	2	2	-	2	-	3	3	3





Anna University Chennai - R2017 Course Outcomes (COs)

Course Name with subject code: Electromagnetic Fields/EC8451

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C213.1	Display an understanding of fundamental electromagnetic laws and concepts
C213.2	Write Maxwell's equations in integral, differential and phasor forms and explain their physical meaning
C213.3	Explain electromagnetic wave propagation in lossy and in lossless media
C213.4	Solve simple problems requiring estimation of electric and magnetic field quantities based on these concepts and laws
C213.5	Understand the concepts of wave propagation
C213.6	Analyze the concepts of EM waves for transmission lines

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C213.1	3	3	2	-	1	-	-	2	-	1	-	1	2	2
C213.2	3	2	1	-	-	-	-	1	-	2	-	1	1	2
C213.3	2	3	2	-	1	-	-	1	-	1	-	1	1	1
C213.4	2	3	1	-	1	-	-	-	-	1	-	1	2	1
C213.5	2	2	2	-	1	-	-	-	-	-	-	-	1	1
C213.6	3	2	1	-	1	-	-	1	-	-	-	-	2	2
C213	3	3	2	-	1	-	-	1	-	1	-	1	2	2





Anna University Chennai - R2017 Course Outcomes (COs)

Course Name with subject code: Linear Integrated Circuits/EC8453

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C214.1	Design linear and non linear applications of OP – AMPS
C214.2	Design applications using analog multiplier and PLL
C214.3	Design ADC and DAC using OP – AMPS
C214.4	Generate waveforms using OP – AMP Circuits
C214.5	Analyze special function ICs
C214.6	Design and Analyze the concepts of Waveform Generators

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C214.1	2	3	3	3	2	2	1	2	-	2	-	-	3	2
C214.2	2	2	3	3	3	-	1	1	-	1	-	-	2	2
C214.3	3	2	2	2	2	1	1	2	-	1	-	-	3	1
C214.4	3	3	3	2	3	1	-	1	-	-	-	-	2	1
C214.5	3	2	2	3	3	1	-	2	-	1	-	-	2	1
C214.6	2	3	2	2	2	-	1	1	-	-	-	-	3	2
C214	3	3	3	3	3	1	1	2	-	1	-	-	3	2





Anna University Chennai - R2017 Course Outcomes (COs)

Course Name with subject code: Environmental Science and Engineering /GE8291

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C215.1	Explain hazards, structure and functions of the ecosystem and its types.
C215.2	Explain various techniques for conservation and values of biodiversity and its threats.
C215.3	Compare effects and mitigation techniques for different environmental pollutions.
C215.4	Explain issues of environment and sustainable development in his personal.
C215.5	Explain various environmental social issues, awareness among the people and its remedies.
C215.6	Explain relationship between the human population and environment.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C215.1	1	-	-	-	-	2	3	3	-	2	-	1	1	1
C215.2	-	1	1	-	-	3	3	2	-	2	-	-	-	2
C215.3	1	1	1	-	ı	3	2	3	ı	2	ı	1	1	2
C215.4	-	1	-	-	1	3	3	2	1	2	1	-	ı	1
C215.5	1	-	1	-	-	2	3	2	-	2	-	1	1	2
C215.6	-	-	1	-	ı	2	2	3	1	1	1	-	-	1
C215	1	1	1	-	-	3	3	3	-	2	-	1	1	2





Anna University Chennai - R2017 Course Outcomes (COs)

Course Name with subject code: Circuits Design and Simulation Laboratory /EC8461

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C216.1	Analyze various types of feedback amplifiers
C216.2	Design oscillators, tuned amplifiers, wave-shaping circuits and multivibrators
C216.3	Design and Analyze the concepts of Power supplies with filters
C216.4	Analyze the concepts of Power regulators
C216.5	Designing feedback amplifiers, oscillators, tuned amplifiers, wave-shaping circuits.
C216.6	Simulating feedback amplifiers, oscillators, tuned amplifiers, wave-shaping circuits and multivibrators using SPICE Tool.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C216.1	3	3	3	3	1	2	2	1	3	2	1	3	2	1
C216.2	3	3	2	3	1	1	1	1	3	1	1	2	1	1
C216.3	2	2	2	2	1	1	1	-	2	1	1	2	1	1
C216.4	2	3	3	2	2	2	2	1	2	1	-	3	2	2
C216.5	3	2	3	2	2	2	2	-	3	-	-	3	2	2
C216.6	2	2	2	3	2	1	1	-	2	-	1	2	1	2
C216	3	3	3	3	2	2	2	1	3	1	1	3	2	2





Anna University Chennai - R2017 Course Outcomes (COs)

Course Name with subject code: Linear Integrated Circuits Laboratory/EC8462

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C217.1	Design amplifiers, oscillators, D-A converters using operational amplifiers.
C217.2	Design filters using op-amp and performs an experiment on frequency response.
C217.3	Analyze the working of PLL and describe its application as a frequency multiplier.
C217.4	Design DC power supply using ICs.
C217.5	Analyze the performance of filters, multivibrators, A/D converter and analog multiplier using SPICE.
C217.6	Simulating feedback amplifiers, oscillators, tuned amplifiers, wave-shaping circuits and multivibrators using SPICE Tool by using op-amp

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C217.1	3	1	3	2	2	2	3	1	3	1	1	2	3	3
C217.2	2	1	2	3	3	1	2	1	2	1	ı	3	2	2
C217.3	3	2	2	3	3	1	3	ı	3	ı	1	3	1	2
C217.4	3	2	-	3	2	2	3	1	3	-	1	3	1	2
C217.5	2	2	-	2	3	1	1	1	2	1	1	2	1	3
C217.6	2	1	2	2	3	2	3	ı	2	1	ı	2	1	3
C217	3	2	2	3	3	2	3	1	3	1	1	3	2	3





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Digital Communication/EC8501

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C301.1	Design PCM systems
C301.2	Design and implement base band transmission schemes
C301.3	Design and implement band pass signaling schemes
C301.4	Analyze the spectral characteristics of band pass signaling schemes and their noise performance
C301.5	Outline the effect of ISI in communication system.
C301.6	Design and implement error control coding schemes

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	PO10	P011	PO12	PSO1	PSO2
C301.1	3	-	-	-	2	2	3	2	-	2	-	2	2	1
C301.2	3	-	1	2	2	2	1	2	-	3	2	-	3	3
C301.3	2	2	1	2	2	3	-	1	1	2	2	-	2	2
C301.4	3	3	2	1	3	2	3	2	2	3	-	3	3	3
C301.5	3	1	2	-	2	2	-	2	1	3	2	1	3	3
C301.6	2	3	-	2	2	1	-	3	-	3	1	3	1	2
C301	3	3	2	2	2	2	2	2	1	3	2	3	3	3





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Discrete - Time signal Processing / EC8553

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C302.1	Apply DFT for the analysis of digital signals and systems
C302.2	Design IIR and FIR filters
C302.3	Characterize the effects of finite precision representation on digital filters
C302.4	Design multirate filters
C302.5	Apply adaptive filters appropriately in communication systems
C302.6	Explain the concept of multirate signal processing.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	PO10	P011	PO12	PSO1	PSO2
C302.1	3	3	3	2	1	3	3	2	-	1	-	3	2	1
C302.2	3	2	2	3	1	2	3	2	-	1	-	3	1	-
C302.3	3	2	3	3	3	3	3	2	-	2	-	2	1	1
C302.4	2	3	3	2	2	3	2	1	-	2	-	3	2	1
C302.5	3	2	2	2	1	2	3	1	-	2	-	3	1	-
C302.6	2	3	2	3	1	2	2	2	-	1	-	2	2	-
C302	3	3	3	3	2	3	3	2	-	2	-	3	2	1





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Computer Architecture and Organization / EC8552

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C303.1	Describe data representation, instruction formats and the operation of a digital computer
C303.2	Illustrate the fixed point and floating-point arithmetic for ALU operation
C303.3	Discuss about implementation schemes of control unit and pipeline performance
C303.4	Explain the concept of various memories, interfacing and organization of multiple processors
C303.5	Discuss parallel processing technique and unconventional architectures
C303.6	Explain the concepts and performance analysis of I/O systems.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C303.1	3	3	2	-	1	-	-	1	-	1	-	1	1	1
C303.2	2	2	2	-	1	-	-	1	-	-	-	1	1	1
C303.3	3	2	3	-	-	-	-	1	-	-	-	-	1	1
C303.4	3	3	3	-	1	-	-	-	-	1	-	1	1	1
C303.5	3	3	3	-	-	-	-	-	-	1	-	1	1	1
C303.6	2	2	2	-	-	-	-	-	-	1	-	-	1	1
C303	3	3	3	-	1	-	-	1	-	1	-	1	1	1





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Communication Networks /EC8551

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C304.1	Identify the components required to build different types of networks
C304.2	Choose the required functionality at each layer for given application
C304.3	Identify solution for each functionality at each layer
C304.4	Trace the flow of information from one node to another node in the network
C304.5	Analyze and Identify the features and operations of various application layer protocols.
C304.6	Compare the different internetworking devices and their functions.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C304.1	1	-	-	-	-	2	3	3	-	2	-	-	1	1
C304.2	-	1	1	-	-	3	3	2	-	2	-	-	-	2
C304.3	1	1	1	-	ı	3	2	3	ı	2	1	-	1	2
C304.4	-	1	-	-	-	3	3	2	-	2	-	-	-	1
C304.5	1	-	1	-	-	2	3	2	-	2	-	-	1	2
C304.6	-	-	1	-	-	2	2	3	-	1	-	-	-	1
C304	1	1	1	-	-	3	3	3	-	2	-	1	1	2





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Digital Signal Processing Laboratory /EC8562

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C305.1	Create a sequence and waveform using MATLAB and DSP processor.
C305.2	Develop linear and circular convolution using MATLAB and DSP processor.
C305.3	Evaluate the DFT of spectrum analysis and FFT using DSP processor.
C305.4	Design IIR, FIR and multirate filter using MATLAB and DSP processor.
C305.5	Analyze MAC operation using various addressing modes.
C305.6	Analyze finite word length effect on DSP system.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C305.1	3	3	3	3	3	1	1	1	-	1	-	-	3	3
C305.2	3	2	3	3	2	-	1	1	-	1	-	-	1	1
C305.3	3	3	2	3	3	1	1	-	-	1	-	-	2	1
C305.4	3	3	2	2	3	-	1	1	-	-	-	-	1	1
C305.5	2	2	3	2	2	-	1	-	-	1	-	-	1	3
C305.6	2	2	2	2	3	1	1	1	-	1	-	-	1	1
C305	3	3	3	3	3	1	1	1	-	1	-	-	2	2





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Communication Systems Laboratory /EC8561

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C306.1	Experiment with AM, FM and sampling trainer kit.
C306.2	Demonstrate the end to end communication link.
C306.3	Experiment with PCM, DM, TDM and Line coding trainer kit.
C306.4	Examine the various baseband digital modulation schemes using MATLAB.
C306.5	Apply channel coding schemes to improve noise performance using MATLAB.
C306.6	Make use of zero forcing and LMS algorithm for equalization.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C306.1	3	3	3	3	3	2	-	1	-	1	2	3	2	2
C306.2	2	3	2	2	2	1	-	2	-	1	2	2	1	1
C306.3	3	2	2	2	3	2	-	2	-	1	1	2	2	2
C306.4	3	2	3	3	3	2	-	1	-	1	1	3	2	1
C306.5	2	3	2	3	2	1	-	2	-	1	2	2	2	1
C306.6	2	2	3	3	3	1	-	1	-	1	1	3	1	2
C306	3	3	3	3	3	2	-	2	-	1	2	3	2	2





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Communication Networks Laboratory/EC8563

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C307.1	Communicate between two desktop computers
C307.2	Implement the different protocols
C307.3	Program using sockets.
C307.4	Implement and compare the various routing algorithms
C307.5	Use the simulation tool.
C307.6	Experiment with the encryption & Decryption concepts.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	PO10	P011	P12	PSO1	PSO2
C307.1	2	1	2	1	3	3	1	2	-	3	2	3	3	2
C307.2	2	ı	2	1	3	2	ı	2	-	3	3	3	3	2
C307.3	2	1	1	1	3	2	ı	1	-	2	2	2	3	2
C307.4	1	ı	1	2	2	3	ı	1	-	2	2	2	2	3
C307.5	1	1	1	2	2	2	-	2	-	3	3	3	2	3
C307.6	1	-	2	2	2	3	-	1	-	2	3	2	2	3
C307	2	1	2	2	3	3	-	2	-	3	3	3	3	3





Anna University Chennai - R2017 Course Outcomes (COs)

Course Name with subject code: Microprocessors and Microcontrollers /EC8691

Course	Course Outcomes												
Code	On Successful completion of the course, Students will be able to,												
C310.1	Inderstand and execute programs based on 8086 microprocessor.												
C310.2	Design Memory Interfacing circuits.												
C310.3	Design and interface I/O circuits.												
C310.4	Design and implement 8051 microcontroller based systems.												
C310.5	Demonstrate the programming proficiency using various addressing modes and instruction set of 8051.												
C310.6	Apply interfacing with peripheral devices using 8086 Microprocessor and 8051 Microcontroller.												

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	PO10	P011	P012	PSO1	PSO2
C310.1	1	-	-	-	2	2	-	3	3	2	2	-	1	1
C310.2	1	-	2	-	3	1	2	3	2	3	1	-	-	2
C310.3	1	1	-	-	3	1	2	2	3	3	1	1	1	2
C310.4	1	2	-	-	2	2	3	2	3	2	2	2	-	1
C310.5	1	-	-	-	3	1	1	3	2	3	1	-	1	2
C310.6	1	2	2	-	3	2	2	2	2	3	2	2	-	1
C310	1	1	1	-	-	2	2	3	3	3	2	1	1	2

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R2017



Course Outcomes (COs)

Course Name with subject code: VLSI Design / EC8095

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C311.1	Realize the concepts of digital building blocks using MOS transistor.
C311.2	Design combinational MOS circuits and power strategies.
C311.3	Design and construct Sequential Circuits and Timing systems.
C311.4	Design arithmetic building blocks and memory subsystems.
C311.5	Apply and implement FPGA design flow and testing.
C311.6	Discuss the techniques of IC design using programmable device.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C311.1	3	2	-	-	1	1	1	1	-	1	-	2	1	2
C311.2	3	2	-	2	-	1	1	-	-	1	-	2	-	1
C311.3	2	2	1	3	ı	1	1	1	1	1	1	1	1	1
C311.4	3	1	1	2	-	1	1	1	-	1	-	2	1	2
C311.5	2	1	1	1	1	1	1	-	ı	1	1	1	ı	2
C311.6	2	1	-	-	-	1	1	-	-	1	-	1	1	1
C311	3	2	1	2	-	1	1	1	-	1	-	2	1	2

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Course Outcomes (COs)

Course Name with subject code: Wireless Communication / EC8692

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C312.1	Characterize a wireless channel and evolve the system design specifications
C312.2	Design a cellular system based on resource availability and traffic demands
C312.3	Identify suitable signaling and multipath mitigation techniques for the wireless channel and system under consideration.
C312.4	Summarize the diversity techniques involved in signal processing.
C312.5	Outline the propagation models of wireless channels.
C312.6	Demonstrate multiple antenna systems.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C312.1	3	3	3	2	2	2	-	2	-	2	-	3	2	1
C312.2	2	3	3	3	3	-	2	2	2	3	1	2	1	2
C312.3	3	2	2	3	3	2	-	3	-	2	-	2	2	2
C312.4	3	3	-	2	3	-	-	2	2	2	-	3	2	2
C312.5	2	3	3	3	2	ı	2	1	ı	2	1	2	2	2
C312.6	3	2	-	2	3	-	-	2	-	1	-	3	3	2
C312	3	3	3	3	3	2	2	2	2	2	1	3	2	2

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Course Outcomes (COs)

Course Name with subject code: Principles of Management / MG8591

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C313.1	Evaluate the global context for taking managerial actions of planning, organizing and controlling.
C313.2	Assess global situation, including opportunities and threats that will impact management of an organization.
C313.3	Assess managerial practices and choices relative to ethical principles and standards.
C313.4	Specify how the managerial tasks of planning, organizing, and controlling can be executed in a variety of circumstances.
C313.5	Develop connection between students studies, personal life and career.
C313.6	Demonstrate knowledge of organizational conflict, negotiation, politics and change.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C313.1	1	3	-	-	-	2	-	3	3	2	2	-	1	1
C313.2	1	2	2	-	-	1	2	3	2	3	1	-	-	2
C313.3	1	1	2	-	1	1	2	2	3	3	1	1	1	2
C313.4	1	2	1	-	-	2	3	2	3	2	2	2	-	1
C313.5	1	-	-	-	-	1	1	3	2	3	1	-	1	2
C313.6	1	2	2	-	-	2	2	2	2	3	2	2	-	1
C313	1	2	2	-	-	2	2	3	3	3	2	1	1	2

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Course Outcomes (COs)

Course Name with subject code: Transmission Lines and RF Systems /EC8651

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C314.1	Explain the characteristics of transmission lines and its losses
C314.2	Write about the standing wave ratio and input impedance in high frequency transmission lines
C314.3	Analyze impedance matching by stubs using smith charts
C314.4	Analyze the characteristics of TE and TM waves
C314.5	Design a RF transceiver system for wireless communication
C314.6	Get Knowledge with RF system transceiver design

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C314.1	3	3	3	3	2	2	2	1	-	2	-	2	3	2
C314.2	2	3	2	3	2	1	1	1	-	1	-	1	2	2
C314.3	2	2	3	2	1	1	1	1	-	2	-	1	3	1
C314.4	3	2	2	2	1	2	2	1	-	1	-	2	2	1
C314.5	2	3	3	3	2	2	2	1	1	1	1	1	2	2
C314.6	3	3	2	3	1	2	1	-	-	2	-	2	3	1
C314	3	3	3	3	2	2	2	1	-	2	-	2	3	2

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Course Outcomes (COs)

Course Name with subject code: Microprocessors and Microcontrollers Laboratory / ${\tt EC8681}$

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C315.1	Write ALP Programmes for fixed and Floating Point and Arithmetic operations
C315.2	Interface different I/Os with processor
C315.3	Generate waveforms using Microprocessors
C315.4	Execute Programs in 8051
C315.5	Explain the difference between simulator and Emulator
C315.6	Design conversion techniques using 8051.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C315.1	3	3	3	3	2	2	-	1	-	1	-	2	1	1
C315.2	3	2	3	3	3	2	-	1	-	1	-	2	1	2
C315.3	2	2	2	2	2	1	-	2	-	1	-	3	1	-
C315.4	2	3	2	2	2	1	-	2	-	1	-	3	1	-
C315.5	3	3	3	3	3	2	-	1	-	1	-	2	1	1
C315.6	3	2	3	2	3	1	-	2	-	1	-	3	2	2
C315	3	3	3	3	3	2	-	2	-	1	-	3	1	2

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Course Outcomes (COs)

Course Name with subject code: VLSI Design Laboratory / EC8661

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C316.1	Write HDL code for basic as well as advanced digital integrated circuit
C316.2	Import the logic modules into FPGA Boards
C316.3	Synthesize Place and Route the digital IPs
C316.4	Design, Simulate and Extract the layouts of Digital & Analog IC Blocks using EDA tools
C316.5	Analyze P&R, Power and clock routing, post P&R simulation and timing analysis of differential amplifier.
C316.6	Design, Simulate and Extract the layouts of Analog IC Blocks using CADENCE / MENTOR GRAPHICS / EQUIVALENT tools.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	PO10	P011	PO12	PSO1	PSO2
C316.1	3	3	3	2	3	ı	1	1	ı	2	-	-	1	2
C316.2	2	2	2	1	2	1	1	1	ı	1	1	-	2	2
C316.3	3	2	2	2	3	1	1	1	ı	1	1	-	2	2
C316.4	3	3	3	2	2	1	1	1	ı	2	1	-	1	2
C316.5	3	3	3	1	3	ı	ı	1	ı	1	ı	-	2	2
C316.6	3	3	3	2	2	-	-	1	-	2	-	-	1	2
C316	3	3	3	2	3	-	-	1	-	2	-	-	2	2

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Course Outcomes (COs)

Course Name with subject code: Technical Seminar / EC8611

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C317.1	
C317.2	
C317.3	
C317.4	
C317.5	
C317.6	

CO - PO Map

COs	P01	P02	P03	P04	PO5	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C317.1	1	1	-	-	2	-	2	2	3	3	3	3	3	3
C317.2	-	-	-	-	1	-	1	2	2	3	2	2	2	2
C317.3	1	-	-	1	1	1	3	3	3	2	3	3	3	3
C317.4	-	-	-	-	2	-	1	3	2	3	2	2	2	3
C317.5	-	-	-	-	1	1	1	2	3	1	2	3	2	2
C317.6	-	-	2	-	2	-	1	3	2	3	3	2	3	2
C317	-	-	-	-	2	-	2	3	3	3	3	3	3	3

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Course Outcomes (COs)

Course Name with subject code: Antennas and Microwave Engineering / EC8701

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C401.1	Apply the basic principles and evaluate antenna parameters and link power budgets
C401.2	Design and assess the performance of various antennas
C401.3	Design a microwave system given the application specifications
C401.4	Explain the importance of matching networks in RF amplifiers.
C401.5	Relate various parameters of microwave devices.
C401.6	Examine the parameters of microwave Tubes.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C401.1	3	3	3	3	2	2	2	3	-	2	-	2	2	2
C401.2	3	3	2	3	3	1	1	2	-	3	2	-	3	2
C401.3	2	2	3	2	3	1	1	2	2	2	-	2	3	3
C401.4	3	2	2	2	3	2	2	2	-	2	2	3	2	2
C401.5	3	3	3	3	2	2	2	2	2	1	-	1	3	2
C401.6	2	3	2	3	3	2	1	3	-	1	-	2	3	2
C401	3	3	3	3	3	2	2	2	2	2	2	2	3	2

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Course Outcomes (COs)

Course Name with subject code: Optical Communication / EC8751

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C402.1	Realize basic elements in optical fibers, different modes and configurations.
C402.2	Analyze the transmission characteristics associated with dispersion and polarization techniques.
C402.3	Design optical sources and detectors with their use in optical communication system.
C402.4	Construct fiber optic receiver systems, measurements and coupling techniques.
C402.5	Design optical communication systems and its networks.
C402.6	Outline the concept of SONET/SDH and WDM.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C402.1	3	3	3	-	3	-	2	2	-	2	-	1	3	3
C402.2	3	3	2	-	3	-	1	2	-	1	-	1	2	3
C402.3	2	3	2	-	2	-	2	1	-	2	-	1	3	2
C402.4	2	2	2	-	2	-	1	2	-	1	-	1	3	2
C402.5	3	3	3	-	3	-	1	1	-	2	-	1	3	2
C402.6	3	2	3	-	2	-	2	2	-	1	-	1	2	3
C402	3	3	3	-	3	-	2	2	-	2	-	1	3	3

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Course Outcomes (COs)

Course Name with subject code: Embedded and Real Time Systems / EC8791

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C403.1	Describe the architecture and programming of ARM processor
C403.2	Outline the concepts of embedded systems
C403.3	Explain the basic concepts of real time operating system design
C403.4	Model real-time applications using embedded-system concepts
C403.5	Differentiate between the general purpose operating system and the real time operating system.
C403.6	Make use of the system design techniques to develop software for embedded systems.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C403.1	3	1	1	1	1	2	1	1	2	1	1	2	3	2
C403.2	3	1	1	1	-	1	2	1	1	-	2	2	3	2
C403.3	3	2	1	1	ı	1	2	1	2	1	2	3	3	3
C403.4	3	1	2	2	2	2	1	1	1	1	1	2	2	3
C403.5	2	2	-	1	1	2	2	1	1	1	2	3	2	2
C403.6	3	2	2	2	2	1	1	1	2	-	1	3	2	3
C403	3	2	1	1	2	2	2	1	2	1	2	3	3	3





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Ad hoc and Wireless Sensor Networks / EC8702

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C404.1	Know the basics of Ad hoc networks and Wireless Sensor Networks
C404.2	Apply this knowledge to identify the suitable routing algorithm based on the network and user requirement
C404.3	Apply the knowledge to identify appropriate physical and MAC layer protocols
C404.4	Understand the transport layer and security issues possible in Ad hoc and sensor networks.
C404.5	Be familiar with the OS used in Wireless Sensor Networks and build basic modules
C404.6	Develop programming platforms and tools.

CO - PO Map

COs	P01	PO2	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C404.1	3	1	1	1	1	2	1	-	ı	-	-	-	3	2
C404.2	3	1	2	1	2	1	1	-	ı	-	1	-	3	2
C404.3	3	2	1	1	1	1	1	-	ı	-	1	-	3	3
C404.4	3	1	2	2	2	2	1	-	ı	-	1	-	2	3
C404.5	2	2	2	1	ı	2	1	-	ı	-	1	-	2	2
C404.6	3	2	2	2	2	1	-	-	-	-	-	-	2	3
C404	3	2	2	2	2	2	-	-	-	-	-	-	3	3





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Embedded Laboratory/EC8711

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C405.1	Discus the basic concept of ARM evaluation system.
	Analyze the given interface (ADC, DAC, LED, PWM, Keyboard, LCD, Stepper Motor and
C405.2	Temperature sensor) with ARM processor.
C405.3	Analyze the performance of interrupt for ARM and FPGA.
C405.4	Examine the implementation of Zigbee protocol and Flashing LED with ARM.
C405.5	Develop a mailbox using ARM.
C405.6	Formulate a mini project using embedded system.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C405.1	3	1	2	-	-	-	1	2	-	1	-	2	2	2
C405.2	3	1	3	1	2	-	1	2	-	1	-	1	3	2
C405.3	3	1	2	-	1	-	1	1	-	2	-	1	1	3
C405.4	2	2	3	1	1	-	1	1	-	1	-	2	1	3
C405.5	2	1	2	-	1	-	1	2	-	1	-	1	1	2
C405.6	3	3	3	2	1	-	1	1	-	2	-	2	2	3
C405.1	3	2	3	1	1	-	1	2	-	1	-	2	2	3





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with subject code: Advanced Communication Laboratory/EC8761

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C406.1	Analyze the performance of simple optical link by measurement of losses
C406.2	Analyze the mode characteristics of fiber
C406.3	Analyze the Eye Pattern, Pulse broadening of optical fiber and the impact on BER
C406.4	Estimate the Wireless Channel Characteristics
C406.5	Analyze the performance of Wireless Communication System
C406.6	Understand the intricacies in Microwave System design

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C406.1	3	3	3	2	3	2	-	1	-	1	-	3	2	1
C406.2	3	2	2	1	3	1	-	1	-	-	-	3	1	-
C406.3	2	2	3	2	2	2	-	1	-	1	-	2	2	1
C406.4	3	2	2	1	3	1	-	1	-	1	-	3	1	1
C406.5	2	3	2	1	2	1	ı	1	1	-	1	3	1	1
C406.6	3	2	3	2	3	2	1	1	ı	1	1	2	2	-
C406	3	3	3	2	3	2	-	1	-	1	-	3	2	1





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with Subject Code: Digital Image Processing/EC8093

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C407.1	Explain the fundamentals of digital image processing.
C407.2	Compare various filters for image enhancement techniques.
C407.3	Outline the filters for image restoration.
C407.4	Make use of image segmentation technique for enhancing the images.
C407.5	Develop various codes for image compression.
C407.6	Explain how to represent the features of an image.

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C407.1	3	1	3	3	3	3	-	1	-	1	-	3	2	1
C407.2	2	2	3	3	3	2	-	1	-	-	-	2	1	1
C407.3	2	1	2	2	2	1	-	1	-	1	-	3	1	1
C407.4	3	-	3	2	2	1	-	1	-	1	-	3	2	1
C407.5	3	3	2	3	2	1	1	1	1	1	1	3	1	1
C407.6	2	1	2	3	3	1	-	1	-	-	-	2	2	1
C407	3	2	3	3	3	2	-	1	-	1	-	3	2	1





Anna University Chennai – R2017 Course Outcomes (COs)

Course Name with Subject Code: Satellite Communication/EC8094

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C408.1	Analyze the satellite orbits
C408.2	Analyze the earth segment and space segment
C408.3	Analyze the satellite Link design
C408.4	Design various satellite applications
C408.5	Analyze the various methods of satellite access
C408.6	Understand the basics of satellite Networks

CO - PO Map

COs	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2
C408.1	3	1	3	3	3	3	-	1	-	1	-	3	2	1
C408.2	2	2	3	3	3	2	-	1	-	-	-	2	1	1
C408.3	2	1	2	2	2	1	-	1	-	1	-	3	1	1
C408.4	3	-	3	2	2	1	-	1	-	1	-	3	2	1
C408.5	3	3	2	3	2	1	1	1	1	1	1	3	1	1
C408.6	2	1	2	3	3	1	-	1	-	-	-	2	2	1
C408	3	2	3	3	3	2	-	1	-	1	-	3	2	1





Anna University Chennai - R2017

Course Outcomes (COs)

Course Name with subject code : Project work / EC8811

Course	Course Outcomes
Code	On Successful completion of the course, Students will be able to,
C409.1	Identify the problem domain, collect and review the literature, and define the problem.
C409.2	Analyze the data collected/generated by applying appropriate techniques, resources and modern engineering tools and interpret the results and synthesize the information to provide valid conclusions.
C409.3	Examine the analyzed results to understand the impact of the professional engineering solutions with ethics, society and environment.
C409.4	Illustrate the results with effective presentations in graphical and tabular form to write effective reports and design documentation.
C409.5	Recognize the need and scope for future study in the broader context of technology.
C409.6	Function as individuals, members and leading the team to manage projects in multidisciplinary environments.

CO - PO Map

do To Map														
COs	P01	PO2	P03	P04	P05	P06	P07	P08	P09	PO10	P011	PO12	PSO1	PSO2
C409.1	3	-	1	1	-	3	3	3	3	2	3	3	1	2
C409.2	2	1	-	-	3	3	3	3	2	1	2	3	1	2
C409.3	-	1	1	-	1	3	3	3	2	2	3	3	1	2
C409.4	-	-	-	-	3	2	2	2	2	3	2	2	1	3
C409.5	1	-	-	1	-	3	2	2	3	2	3	3	1	3
C409.6	-	-	-	-	-	2	3	3	3	1	3	2	1	2
C409	1	1	1	1	1	3	3	3	3	2	3	3	1	2



