

PERI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Mapping of Course outcome with program outcome
Regulation -2017
II Year

III SEMESTER

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
MA8352 – LINEAR ALGEBRA AND PARTIAL DIFFERENTIAL EQUATIONS

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|---|-----------------|
| C201.1 | To introduce the basic notions of groups, rings, fields which will then be used to solve related problems. | U |
| C201.2 | Demonstrate accurate and efficient use of advanced algebraic techniques | U |
| C201.3 | Demonstrate their mastery by solving non - trivial problems related to the concepts and by simple theorems about the statements proven by the text. | U |
| C201.4 | Able to solve various types of partial differential equations. | A |
| C201.5 | Able to solve engineering problems using Fourier series.. | A |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|------------|------------|------------|------------|-----|-----|-----|-----|------|------------|------------|---------------------------|------------|------------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO 1 | PSO 2 | PSO 3 |
| C201.1 | 2 | 2 | 2 | 1 | 1 | | | | | | 1 | 1 | 2 | 2 | 1 |
| C201.2 | 2 | 2 | 2 | 1 | 1 | | | | | | 1 | 1 | 2 | 2 | 1 |
| C201.3 | 2 | 2 | 2 | 1 | 1 | | | | | | 1 | 1 | 2 | 2 | 1 |
| C201.4 | 3 | 3 | 3 | 2 | 2 | | | | | | 2 | 2 | 3 | 3 | 2 |
| C201.5 | 3 | 3 | 3 | 2 | 2 | | | | | | 2 | 2 | 3 | 3 | 2 |
| C201 | 2.4 | 2.4 | 2.4 | 1.4 | 1.4 | | | | | | 1.4 | 1.4 | 2.4 | 2.4 | 1.4 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8393 – FUNDAMENTALS OF DATA STRUCTURES IN C
COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|--|-----------------|
| C202.1 | Implement linear and non-linear data structure operations using C | A |
| C202.2 | Suggest appropriate linear / non-linear data structure for any given data set. | U |
| C202.3 | Apply hashing concepts for a given problem | A |
| C202.4 | Modify or suggest new data structure for an application | U |
| C202.5 | Appropriately choose the sorting algorithm for an application | U |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|------------|------------|----------|----------|----------|-----|-----|-----|------|------------|------------|---------------------------|------------|------------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C202.1 | 3 | 3 | 3 | 2 | 2 | 2 | | | | | 3 | 3 | 3 | 3 | 2 |
| C202.2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 2 | 1 |
| C202.3 | 3 | 3 | 3 | 2 | 2 | 2 | | | | | 3 | 3 | 3 | 3 | 2 |
| C202.4 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 2 | 1 |
| C202.5 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 2 | 1 |
| C202 | 2.4 | 2.4 | 2.4 | 2 | 2 | 2 | | | | | 2.4 | 2.4 | 2.4 | 2.4 | 1.4 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8351 – ELECTRONIC CIRCUITS 1

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|---|-----------------|
| C203.1 | Acquire knowledge of Working principles, characteristics and applications of BJT and FET | U |
| C203.2 | Acquire knowledge of Frequency response characteristics of BJT and FET amplifiers | U |
| C203.3 | Analyze the performance of small signal BJT and FET amplifiers - single stage and multistage amplifiers | An |
| C203.4 | Analyze the of Frequency response of amplifiers | An |
| C203.5 | Apply the knowledge gained in the design of Electronic circuits | A |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|------------|------------|------------|------------|------------|-----|-----|-----|------|------------|------------|---------------------------|------------|------------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C203.1 | 2 | 2 | 2 | 1 | 1 | 1 | | | | | 1 | 2 | 2 | 1 | 2 |
| C203.2 | 2 | 2 | 2 | 1 | 1 | 1 | | | | | 1 | 2 | 2 | 1 | 2 |
| C203.3 | 3 | 3 | 3 | 2 | 2 | 2 | | | | | 2 | 3 | 3 | 2 | 3 |
| C203.4 | 3 | 3 | 3 | 2 | 2 | 2 | | | | | 2 | 3 | 3 | 2 | 3 |
| C203.5 | 3 | 3 | 3 | 2 | 2 | 2 | | | | | 2 | 3 | 3 | 2 | 3 |
| C203 | 2.6 | 2.6 | 2.6 | 1.6 | 1.6 | 1.6 | | | | | 1.6 | 2.6 | 2.6 | 1.6 | 2.6 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8352 – SIGNALS AND SYSTEMS
COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|---|-----------------|
| C204.1 | Determine if a given system is linear/causal/stable | A |
| C204.2 | Capable of determining the frequency components present in a deterministic signal | A |
| C204.3 | Capable of characterizing LTI systems in the time domain and frequency domain | U |
| C204.4 | Compute the output of an LTI system in the time and frequency domains | A |
| C204.5 | Analyze the Discrete time signals using Transforms | An |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|------------|------------|------------|------------|------------|-----|-----|-----|------|------------|------------|---------------------------|------------|------------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C204.1 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 3 | 3 |
| C204.2 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 3 | 3 |
| C204.3 | 2 | 2 | 1 | 1 | 1 | 0 | | | | | 0 | 1 | 2 | 2 | 2 |
| C204.4 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 3 | 3 |
| C204.5 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 3 | 3 |
| C204 | 2.8 | 2.8 | 1.8 | 1.8 | 1.8 | 0.8 | | | | | 0.8 | 1.8 | 2.8 | 2.8 | 2.8 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8392 – DIGITAL ELECTRONICS
COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|--|-----------------|
| C205.1 | Use digital electronics in the present contemporary world | An |
| C205.2 | Design various combinational digital circuits using logic gates | A |
| C205.3 | Do the analysis and design procedures for synchronous and asynchronous sequential circuits | An |
| C205.4 | Use the semiconductor memories and related technology | An |
| C205.5 | Use electronic circuits involved in the design of logic gates | An |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|----------|----------|----------|----------|----------|-----|-----|-----|------|----------|----------|---------------------------|----------|----------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C205.1 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 2 | 2 |
| C205.2 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 2 | 2 |
| C205.3 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 2 | 2 |
| C205.4 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 2 | 2 |
| C205.5 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 2 | 2 |
| C205 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 1 | 2 | 3 | 2 | 2 |

HOD/ECE

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8391 – CONTROL SYSTEMS ENGINEERING
COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|--|-----------------|
| C206.1 | Identify the various control system components and their representations. | U |
| C206.2 | Analyze the various time domain parameters. | An |
| C206.3 | Analyze the various frequency response plots and its system. | An |
| C206.4 | Apply the concepts of various system stability criteria. | A |
| C206.5 | Design various transfer functions of digital control system using state variable models. | A |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|------------|------------|------------|------------|------------|-----|-----|-----|------|------------|------------|---------------------------|------------|------------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C206.1 | 2 | 2 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 2 | 2 | 1 |
| C206.2 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 3 | 3 | 2 |
| C206.3 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 3 | 3 | 2 |
| C206.4 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 3 | 3 | 2 |
| C206.5 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 3 | 3 | 2 |
| C206 | 2.8 | 2.8 | 1.8 | 1.8 | 1.8 | 1.8 | | | | | 1.8 | 1.8 | 2.8 | 2.8 | 1.8 |

HOD/ECE

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8381 – FUNDAMENTALS OF DATA STRUCTURES IN C LABORATORY

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive Level |
|---------------|--|-----------------|
| C207.1 | Write basic and advanced programs in C | U |
| C207.2 | Implement functions and recursive functions in C | A |
| C207.3 | Implement data structures using C | A |
| C207.4 | Choose appropriate sorting algorithms for an application | U |
| C207.5 | Choose appropriate sorting algorithm to implement in a modularized way | U |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|------------|------------|------------|------------|------------|-----|-----|-----|------|------------|------------|---------------------------|------------|------------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C207.1 | 2 | 2 | 1 | 1 | 1 | 1 | | | | | 2 | 2 | 1 | 1 | 1 |
| C207.2 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 3 | 3 | 2 | 2 | 2 |
| C207.3 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 3 | 3 | 2 | 2 | 2 |
| C207.4 | 2 | 2 | 1 | 1 | 1 | 1 | | | | | 2 | 2 | 1 | 1 | 1 |
| C207.5 | 2 | 2 | 1 | 1 | 1 | 1 | | | | | 2 | 2 | 1 | 1 | 1 |
| C207 | 2.4 | 2.4 | 1.4 | 1.4 | 1.4 | 1.4 | | | | | 2.4 | 2.4 | 1.4 | 1.4 | 1.4 |

HOD/ECE

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8361 – ANALOG AND DIGITAL CIRCUITS LABORATORY

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|--|-----------------|
| C208.1 | Design and Test rectifiers, filters and regulated power supplies. | AN |
| C208.2 | Design and Test BJT/JFET amplifiers. | AN |
| C208.3 | Differentiate cascode and cascade amplifiers. | A |
| C208.4 | Analyze the limitation in bandwidth of single stage and multi stage amplifier & Measure CMRR in differential amplifier | AN |
| C208.5 | Simulate and analyze amplifier circuits using PSpice.& Design and Test the digital logic circuits | AN |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|---------------------------|------|------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C208.1 | 3 | 3 | 3 | 3 | 3 | 2 | | | | | 3 | 3 | 3 | 2 | 2 |
| C208.2 | 3 | 3 | 3 | 3 | 3 | 2 | | | | | 3 | 3 | 3 | 2 | 2 |
| C208.3 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 1 | 1 |
| C208.4 | 3 | 3 | 3 | 3 | 3 | 2 | | | | | 3 | 3 | 3 | 2 | 2 |
| C208.5 | 3 | 3 | 3 | 3 | 3 | 2 | | | | | 3 | 3 | 3 | 2 | 2 |
| C208 | 3 | 3 | 2.8 | 2.8 | 2.8 | 2 | | | | | 2.8 | 2.8 | 2.8 | 1.8 | 1.8 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
HS8381 Interpersonal Skills/Listening & Speaking

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|--|-----------------|
| C209.1 | Learn the importance of interpersonal skills | R |
| C209.2 | Recognize the importance of interpersonal skills | U |
| C209.3 | Understand how good communication with other can influence our working relationships | U |
| C209.4 | Describe how good communication with other can influence our working relationships | U |
| C209.5 | outline the roles we play in our work groups and teams | U |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|---------------------------|------|------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C208.1 | | | | | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C209.2 | | | | | | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| C209.3 | | | | | | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| C209.4 | | | | | | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| C209.5 | | | | | | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| C209 | | | | | | 1.8 | | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |

HOD/ECE

IV SEMESTER

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
MA8451 – PROBABILITY AND RANDOM PROCESSES

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive Level |
|---------------|--|-----------------|
| C210.1 | Understand the fundamental knowledge of the concepts of probability and have knowledge of standard distributions which can describe real life phenomenon. | U |
| C210.2 | Understand the basic concepts of one and two dimensional random variables and apply in engineering applications.. | U |
| C210.3 | Apply the concept random processes in engineering disciplines. | A |
| C210.4 | Understand and apply the concept of correlation and spectral densities. | U |
| C210.5 | The students will have an exposure of various distribution functions and help in acquiring skills in handling situations involving more than one variable. Able to analyze the response of random inputs to linear time invariant systems. | AN |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|------------|------------|------------|------------|-----|-----|-----|-----|------|------------|------------|---------------------------|------------|----------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C210.1 | 2 | 2 | 1 | 1 | 1 | | | | | | 1 | 1 | 1 | 1 | 0 |
| C210.2 | 2 | 2 | 1 | 1 | 1 | | | | | | 1 | 1 | 1 | 1 | 0 |
| C210.3 | 3 | 3 | 2 | 2 | 2 | | | | | | 2 | 2 | 2 | 2 | 0 |
| C210.4 | 2 | 2 | 1 | 1 | 1 | | | | | | 1 | 1 | 1 | 1 | 0 |
| C210.5 | 3 | 3 | 2 | 2 | 2 | | | | | | 2 | 2 | 2 | 2 | 0 |
| C210 | 2.4 | 2.4 | 1.4 | 1.4 | 1.4 | | | | | | 1.4 | 1.4 | 1.4 | 1.4 | 0 |

PERI INSTITUTE OF TECHNOLOGY PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8452 – ELECTRONIC CIRCUITS II
COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive Level |
|---------------|--|-----------------|
| C211.1 | Design and analyze feedback amplifiers | AN |
| C211.2 | Design and analyze RC and LC Oscillators | A |
| C211.3 | Design and analyze tuned amplifiers | AN |
| C211.4 | Design and analyze wave shaping circuits, multivibrators | A |
| C211.5 | Design power amplifier and DC convertors. | A |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|----------|------------|------------|------------|------------|-----|-----|-----|------|------------|------------|---------------------------|------------|------------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C211.1 | 3 | 3 | 2 | 2 | 1 | 1 | | | | | 1 | 1 | 2 | 2 | 2 |
| C211.2 | 3 | 3 | 3 | 3 | 0 | 0 | | | | | 0 | 0 | 1 | 1 | 1 |
| C211.3 | 3 | 3 | 2 | 2 | 1 | 1 | | | | | 1 | 1 | 2 | 2 | 2 |
| C211.4 | 3 | 3 | 3 | 3 | 0 | 0 | | | | | 0 | 0 | 1 | 1 | 1 |
| C21.5 | 3 | 3 | 3 | 3 | 0 | 0 | | | | | 0 | 0 | 1 | 1 | 1 |
| C211 | 3 | 3 | 2.6 | 2.6 | 0.4 | 0.4 | | | | | 0.4 | 0.4 | 1.4 | 1.4 | 1.4 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8491 – COMMUNICATION THEORY
COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|---|-----------------|
| C212.1 | Design AM communication systems | A |
| C212.2 | Design Angle modulated communication systems | A |
| C212.3 | Apply the concepts of Random Process to the design of Communication systems | A |
| C212.4 | Analyze the noise performance of AM and FM systems | AN |
| C212.5 | Gain knowledge in sampling and quantization | U |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|---------------------------|------|------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C212.1 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 2 | 1 |
| C212.2 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 2 | 1 |
| C212.3 | 3 | 3 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 2 | 1 |
| C212.4 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | 3 | 3 | 3 | 3 | 2 |
| C212.5 | 2 | 2 | 2 | 2 | 0 | 0 | | | | | 0 | 1 | 2 | 2 | 2 |
| C212 | 2.8 | 2.8 | 2.2 | 2.2 | 1.8 | 1.8 | | | | | 1.8 | 2 | 2.2 | 2.2 | 1.4 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8451 – ELECTROMAGNETIC FIELDS
COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|--|-----------------|
| C213.1 | Display an understanding of fundamental electromagnetic laws and concepts | R |
| C213.2 | Write Maxwell's equations in integral, differential and phasor forms and explain their physical meaning | U |
| C213.3 | Explain electromagnetic wave propagation in lossy and in lossless media | R |
| C213.4 | Solve simple problems requiring estimation of electric field quantities based on these concepts and laws | A |
| C213.5 | Solve simple problems requiring estimation of magnetic field quantities based on these concepts and laws | A |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|----------|----------|----------|----------|----------|-----|-----|-----|------|----------|----------|---------------------------|----------|----------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO 1 | PSO 2 | PSO 3 |
| C213.1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 1 |
| C213.2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 2 | 2 |
| C213.3 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 1 |
| C213.4 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | 3 | 3 | 3 | 3 | 3 |
| C213.5 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | 3 | 3 | 3 | 3 | 3 |
| C213 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 2 | 2 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8453 – LINEAR INTEGRATED CIRCUITS

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|--|-----------------|
| C214.1 | Design linear and non linear application of OP-AMP | A |
| C214.2 | Design Application using analog multiplier and PLL | A |
| C214.3 | Design ADC and DAC using OP-AMP | A |
| C214.4 | Generate waveforms using OP – AMP Circuits | A |
| C214.5 | Analyze special function Ics | AN |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|----------|------------|------------|------------|------------|-----|-----|-----|------|------------|------------|---------------------------|------------|------------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C214.1 | 3 | 3 | 2 | 2 | 1 | 1 | | | | | 1 | 1 | 2 | 2 | 1 |
| C214.2 | 3 | 3 | 2 | 2 | 1 | 1 | | | | | 1 | 1 | 2 | 2 | 1 |
| C214.3 | 3 | 3 | 2 | 2 | 1 | 1 | | | | | 1 | 1 | 2 | 2 | 1 |
| C214.4 | 3 | 3 | 2 | 2 | 1 | 1 | | | | | 1 | 1 | 2 | 2 | 1 |
| C214.5 | 3 | 3 | 3 | 3 | 2 | 2 | | | | | 2 | 2 | 3 | 3 | 2 |
| C214 | 3 | 3 | 2.2 | 2.2 | 1.2 | 1.2 | | | | | 1.2 | 1.2 | 2.2 | 2.2 | 1.2 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
GE8291 – ENVIRONMENTAL SCIENCE AND ENGINEERING

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive level |
|---------------|--|-----------------|
| C215.1 | Environmental Pollution or problems cannot be solved by mere laws. | R |
| C215.2 | Public participation is an important aspect which serves the environmental Protection. One will obtain knowledge on the following after completing the course. | U |
| C215.3 | Public awareness of environmental is at infant stage. | U |
| C215.4 | Ignorance and incomplete knowledge has lead to misconceptions | U |
| C215.5 | Development and improvement in standard. of living has lead to serious environmental disasters | U |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|------------|-----|------------|-----|------------|------------|------------|-----|------------|------|------------|---------------------------|------|------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C2145.1 | 1 | 1 | | 1 | | 1 | 1 | 1 | | 1 | | 1 | | | |
| C2152 | 2 | 2 | | 2 | | 2 | 2 | 2 | | 2 | | 2 | | | |
| C215.3 | 2 | 2 | | 2 | | 2 | 2 | 2 | | 2 | | 2 | | | |
| C215.4 | 2 | 2 | | 2 | | 2 | 2 | 2 | | 2 | | 2 | | | |
| C215.5 | 2 | 2 | | 2 | | 2 | 2 | 2 | | 2 | | 2 | | | |
| C215 | 1.8 | 1.8 | | 1.8 | | 1.8 | 1.8 | 1.8 | | 1.8 | | 1.8 | | | |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8461 – CIRCUITS DESIGN AND SIMULATION LABORATORY

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive Level |
|---------------|--|-----------------|
| C216.1 | Analyze various types of feedback amplifiers | AN |
| C216.2 | Design oscillators, tuned amplifiers, wave-shaping circuits and multivibrators | A |
| C216.3 | Design and simulate feedback amplifiers, oscillators using SPICE Tool | A |
| C216.4 | Design and simulate uned amplifiers, wave-shaping circuits using SPICE Tool | A |
| C216.5 | Design and simulate multivibrators using SPICE Tool | A |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|----------|------------|------------|------------|------------|-----|-----|-----|------|------------|------------|---------------------------|------------|------------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C216.1 | 3 | 2 | 2 | 2 | 2 | 2 | | | | | 2 | 2 | 2 | 2 | 3 |
| C216.2 | 3 | 2 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 2 |
| C216.3 | 3 | 2 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 2 |
| C216.4 | 3 | 2 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 2 |
| C216.5 | 3 | 2 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 2 |
| C216 | 3 | 2 | 1.2 | 1.2 | 1.2 | 1.2 | | | | | 1.2 | 1.2 | 1.2 | 1.2 | 2.2 |

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
EC8462 – LINEAR INTEGRATED CIRCUITS LABORATORY

COURSE OUTCOMES

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

| CO No. | Course Outcomes | Cognitive Level |
|---------------|--|-----------------|
| C217.1 | Design amplifiers, oscillators, D-A converters using operational amplifiers. | A |
| C217.2 | Design filters using op-amp and performs an experiment on frequency response. | A |
| C217.3 | Analyze the working of PLL and describe its application as a frequency multiplier. | AN |
| C217.4 | Design DC power supply using ICs. | A |
| C217.5 | Analyze the performance of filters, multivibrators, A/D converter and analog multiplier using SPICE. | AN |

MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOME

| Course Outcomes | Program Outcomes | | | | | | | | | | | | Program Specific Outcomes | | |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|---------------------------|------|------|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| C217.1 | 3 | 3 | 3 | 3 | 3 | 2 | | | | | 3 | 3 | 3 | 3 | 2 |
| C217.2 | 3 | 3 | 3 | 3 | 3 | 2 | | | | | 3 | 3 | 3 | 3 | 2 |
| C217.3 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 2 | 2 | 2 | 2 | 1 |
| C217.4 | 3 | 3 | 3 | 3 | 3 | 2 | | | | | 3 | 3 | 3 | 3 | 2 |
| C217.5 | 3 | 3 | 2 | 2 | 2 | 1 | | | | | 2 | 2 | 2 | 2 | 1 |
| C217 | 3 | 3 | 2.6 | 2.6 | 2.6 | 1.6 | | | | | 2.6 | 2.6 | 2.6 | 2.6 | 1.6 |