



## **Electronics And Communication Engineering**

### **IV Year-I Sem**

#### **NETWORK SECURITY AND CRYPTOGRAPHY (PE – IV) (EC723PE)**

##### **Course Outcomes:**

Upon completing this course, the student will be able to

- 1) Describe network security fundamental concepts and principles
- 2) Encrypt and decrypt messages using block ciphers and network security technology and protocols
- 3) Analyze key agreement algorithms to identify their weaknesses
- 4) Identify and assess different types of threats, malware, spyware, viruses, vulnerabilities
- 5) Identify and assess different types of spyware, viruses, vulnerabilities

#### **MICROWAVE AND OPTICAL COMMUNICATIONS LAB (EC703PC)**

##### **Course Outcomes:**

- 1) Identify and demonstrate the working of various microwave components.
- 2) Demonstrate the characteristics of directional couplers.
- 3) Analyse the microwave measurement procedures
- 4) Analyse the characteristics of optical sources by conducting experiments and measuring various parameters
- 5) Design and analyze an optical fiber communication link
- 6) Demonstrate the losses of optical fiber links



### **Principles Of Enterprenuership (MT701OE)**

#### **Course Outcomes:**

- 1) Understand basics of Entrepreneurship. (Knowledge)
- 2) Explain financing and managing the new ventures. (Application)
- 3) Understand schemes and functions of different corporations. (Evaluation)
- 4) Explain industrial final support from different corporations. (knowledge)
- 5) Describe production and marking management. (Comprehension)

### **DIGITAL IMAGE PROCESSING (PE – III) (EC713PE/EI812PE)**

#### **Course Outcomes:**

Upon completing this course, the student will be able to

- 1) Explore the fundamental relations between pixels and utility of 2-D transforms in image processer.
- 2) Understand the enhancement, segmentation and restoration processes on an image.
- 3) Implement the various Morphological operations on an image
- 4) Understand the need of compression of basic compression algorithms
- 5) Understand the need of evaluation of basic compression algorithms.

### **MICROWAVE AND OPTICAL COMMUNICATIONS (PC) (EC701PC)**

#### **Course Outcomes:**

Upon completing this course, the student will be able to

- 1) Known power generation at microwave frequencies and derive the performance characteristics.
- 2) realize the need for solid state microwave sources and understand the principles of solid state devices.
- 3) distinguish between the different types of waveguide and ferrite components, and select proper components for engineering applications
- 4) understand the utility of S-parameters in microwave component design and learn the measurement procedure of various microwave parameters.
- 5) Understand the mechanism of light propagation through Optical Fibres.



**PROFESSIONAL PRACTICE, LAW AND ETHICS (PC)  
(SM702MS)**

**Course Outcomes:**

- 1) Understand the importance of professional practice, Law and Ethics in their personal lives and professional careers. (Knowledge)
- 2) To Understand the importance of professional practice, Law and ethics in personal and professional life. (Knowledge)
- 3) Understand the rights and responsibilities as an employee, team member and a global citizen (Evaluation)
- 4) To learn the rights and responsibilities as an employee, team member and a global citizen. (Knowledge)
- 5) To develop some ideas of the legal and practical aspects of their professional and their role in the society. (Application)

**Project Stage – I**

**Course Outcomes:**

- 1) Select a suitable project making use of the technical and engineering knowledge gained from previous courses with the awareness of impact of technology on the society and their ethical responsibilities.
- 2) Collect and disseminate information related to selected project. Identify and work with the modern tools required for the implementation of the project.
- 3) Form a team and distribute the work among them. Communicate technical and general information by means of oral as well as written presentation skills with professionalism.
- 4) Refine and complete the selected project making use of the technical and engineering knowledge which meets the expected outcome.
- 5) Acquire problem solving, system integration, project management and documentation skills

**principal**



## **Electronics And Communication Engineering**

### **IV Year-II Sem**

#### **SYSTEM ON CHIP ARCHITECTURE (PE – VI (EC821PE)**

##### **Course Outcomes:**

- 1) Expected to understand SOC Architectural features.
- 2) To acquire the knowledge on processor selection criteria and limitations
- 3) To acquires the knowledge of memory architectures on SOC.
- 4) To understands the interconnection strategies and their customization on SOC.
- 5) To understands the interconnection their customization on SOC

#### **RADAR SYSTEMS (PE – V) (EC812PE)**

##### **Course Outcomes:**

Upon completing this course, the student will be able to

- 1) Derive the complete radar range equation.
- 2) Understand the need and functioning of CW, FM-CW radars
- 3) Understand the need and functioning of MTI radars
- 4) Known various Tracking methods.
- 5) Derive the matched filter response characteristics for radar receivers.



## **Total Quality Management**

### **(MT8020E)**

#### **Course Outcomes:**

- 1) Analyze and Understand what total quality management is. (Application)
- 2) Analyze the concept of customer focus and satisfaction. (Application)
- 3) Analyze and describe Total Quality Management Organization. (Application)
- 4) Describe and explain the working principle of Seven Tools of Total Quality Management. (Knowledge)
- 5) Understand and Discuss the Cost of Quality in total quality management. (Knowledge)

#### **Project Stage – II**

#### **Course Outcomes:**

- 6) Select a suitable project making use of the technical and engineering knowledge gained from previous courses with the awareness of impact of technology on the society and their ethical responsibilities.
- 7) Collect and disseminate information related to selected project. Identify and work with the modern tools required for the implementation of the project.
- 8) Form a team and distribute the work among them. Communicate technical and general information by means of oral as well as written presentation skills with professionalism.
- 9) Refine and complete the selected project making use of the technical and engineering knowledge which meets the expected outcome.
- 10) Acquire problem solving, system integration, project management and documentation skills

**Principal**