



MANNAR THIRUMALAI NAICKER COLLEGE (Autonomous)
(An Autonomous Institution Affiliated to Madurai Kamaraj University)
(Accredited with “A” Grade by NAAC)
Pasumalai, Madurai -625004

V & VI SEMESTER - COURSE OUTCOMES
SCIENCE

B.Sc., ELECTRONICS AND COMMUNICATIN

18UELC51

MICROPROCESSORS AND INTERFACING

Course Outcomes:

On successful completion of this course, the students will be able:

CO 1: Understand the basic architecture of 8085 and 8255 PPI.

CO 2: Classify different addressing modes and instructions set.

CO 3: Apply microprocessor instructions to develop assembly languages programs.

CO 4: Analyze the concept of advanced microprocessors.

CO 5: Select the interfacing devices with microprocessors.

CO 6: Design and develop interfacing programs with microprocessors.

18UELC52

SENSORS AND TRANSDUCER

Course Outcomes:

On successful completion of this course, the students will be able:

CO 1: Remembering the concept of a transducer

CO 2: Understand the principle of displacement and strain gauge techniques

CO 3: Identify the concept of pressure sensors.

CO 4: Classify types of flow meters.

CO 5: Evaluate force and torque of sensors and transducers

CO 6: Improve the concepts of different measuring techniques.

18UELE51

INTERNET OF THINGS

Course Outcomes:

On successful completion of this course, the students will be able:

CO1:Remember the concepts of Internet of Things.

CO2:Understand the basic design principles for IoT.

CO3: How to apply enterprises plan for IoT deployment in networks.

CO4:Compare skills on IoT Systems like Python Packages and Raspberry pi.

CO5:Importance of basic IoT applications on embedded platform.

18UELE52**INDUSTRIAL AND POWER ELECTRONICS****Course Outcomes:**

On successful completion of this course, the students will be able:

CO 1: Identify basic requirements for power electronics based design applications.

CO2: Understanding the knowledge about power devices.

CO 3: Identify single and three phase inverters and cycloconverters.

CO 4: Classify different power converters and control with their applications.

CO 5: Design and develop various power electronic circuits for industrial applications.

18UELE53**MOBILE COMMUNICATION****Course Outcomes:**

On successful completion of this course, the students will be able:

CO1: Remember the modulation techniques and elements of communication system.

CO2: Summarize different technic in mobile communication.

CO3: Identify the concepts of GSM and multiple access techniques.

CO4: classify various types of spectrum techniques.

CO5: Importance of mobile satellitesand GPS.

18UELS51**FIBER OPTIC COMMUNICATION****Course Outcomes:**

On successful completion of this course, the students will be able:

CO1: Remember the theory of fiber optic communication.

CO2: Describe the different characteristics of optical fiber.

CO3: Operation of different types of optical sources

CO4: Classify the different types of optical detector.

CO5: Importance of an optical fiber system.

CO6: Prepare the data communication through FOC Cable.

18UELS52**BIO- MEDICAL INSTRUMENTATION****Course Outcomes:**

On successful completion of this course, the students will be able:

CO1: Identify various Bio – potential and their specifications in terms of amplitude and frequency.

CO2: Understand the concept of biomedical recorders and patients monitoring systems.

CO3: Use of the therapeutic instruments for treatment purpose.

CO4: Analyze various factors of Bio electric signals and electrodes.

CO5: Importance of modern imaging instruments.

18UELCP3**COMMUNICATION LAB****Course outcomes:**

On successful completion of the course, the leaners should be able to:

CO1: Remember the basic concepts of Filters

CO2: Understand the working principles of modulation and demodulation techniques

CO3: Construct analog and digital modulation and demodulation circuits

CO4: construct mini project based on communication system (FM Transmitter and Receiver)

CO5: understanding the concept of PLL synthesizer.

18UELAP3

SENSORS AND TRANSDUCERS LAB

Course outcomes:

On successful completion of the course, the learners should be able to:

CO1: Remember the basic concepts of Transducers

CO2: Understand the working principles of Temperature sensors

CO3: Understand the working principles of strain sensors

CO4: Understand the application of displacement and optical sensors.

CO5: Measure and calibrate all sensing devices.

18UELCP4

MICROPROCESSOR AND MICROCONTROLLER LAB

Course outcomes:

On successful completion of the course, the learners should be able to:

CO1: Remember the instruction set of microprocessor and microcontroller

CO2: Understand the Assembly language programming

CO3: Write assembly language program for arithmetic, logical, data transfer operation

CO4: Design IO interfacing circuit with microprocessor and microcontroller

CO5: Design mini project based on the microprocessors and microcontroller

18UELPR1

PROJECT

Course outcomes:

On successful completion of the course, the learners should be able to:

CO1: Define a project [K1]

CO2: Discuss a major issue in a project [K2]

CO3: Apply the interpretative skills on a theme [K3]

CO4: Compare the work of art in comparison with others [K5]

CO5: Create one's own project [K6]

18UELC61 MICROCONTROLLER 8051 AND EMBEDDED SYSTEMS

Course Outcomes:

On successful completion of this course, the students will be able:

CO1: Remember the basic architecture of 8051 microcontrollers and embedded processors.

CO2: Understand the concepts of addressing modes, instruction set, I/O ports, interrupt, timers.

CO3: Develop interfacing with various real-time system using embedded C programming

CO4: Focus on the architecture of PIC microcontroller.

CO5:Importance of the features, applications and functional description of ARM microcontroller.

18UELC62

DIGITAL SIGNAL PROCESSING

Course Outcomes:

On successful completion of this course, the students will be able:

CO1: Understand Digital Signal Controllers and their Applications

CO2: Design digital filters IIR and FIR filters

CO3: Develop discrete form and cascade form of FIR and ITR system

CO4: Analyze the concept of FFT and DFT

CO5: Evaluate finite word length effects in signal processing

18UELE61

INDUSTRIAL AUTOMATION

Course Outcomes:

On successful completion of this course, the students will be able:

CO1: Remembering the basics of industrial automation system

CO2: Understand the concepts of actuators

CO3: Develop data acquisition system

CO4: Focus on data acquisition systems

CO5: Importance of programmable logic controller

CO6: Develop the knowledge of PLC applications.

18UELE62

ANTENNA AND WAVE PROPAGATION

Course Outcomes:

On successful completion of this course, the students will be able:

CO1: Define antenna parameters and radiation principles.

CO2: Understand the fundamentals of antenna types.

CO3: Manipulate the radiation resistance of dipole antennas.

CO4: Analyze the different types of frequency based antennas.

CO5: Importance of Wave propagation types.

18UELE63

MICROWAVE AND RADAR SYSTEMS

Course Outcomes:

On successful completion of this course, the students will be able:

CO 1: Understand the theory of microwave and Radar systems

CO 2: Discuss the working of microwave amplifiers, oscillators and devices.

- CO 3:** Design and analyze the microwave amplifiers, oscillators and devices.
- CO 4:** Illustrate the different types of radar systems
- CO 5:** Evaluate the concepts of Radar transmitter and receiver.
- CO 6:** Generalize the concepts of Microwave and radar systems.

18UELS61

COMPUTER NETWORKS

Course Outcomes:

On successful completion of this course, the students will be able:

- CO 1:** Understand the basics of computer networks and reference models
- CO 2:** Explain the communication medium of physical layer
- CO 3:** Develop the knowledge of data link layer and medium access layer
- CO 4:** Compare all layers in OSI model and TCP/IP
- CO 5:** Importance of Network usage in recent trend

18UELS62

TELEVISION SYSTEMS

Course Outcomes:

On successful completion of this course, the students will be able:

- CO 1:** Define the various parameters of television picture
- CO 2:** Understand the working principle of camera tubes
- CO 3:** Develop knowledge in transmitting and receiving concepts of TV
- CO 4:** Compare monochrome television and color television system
- CO 5:** Importance of advanced television systems

18UELCP3

COMMUNICATION LAB

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18UELAP3

SENSORS AND TRANSDUCERS LAB

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