

Noorul Islam Centre for Higher Education

(Deemed to be University u/s 3 of the UGC Act 1956)

Kumaracoil, Thuckalay, Kanyakumari District - 629 180

Accredited by NAAC with 'A' Grade

EE25 ME APPLIED ELECTRONICS



Student Performance and Learning Outcomes

EE25 ME APPLIED ELECTRONICS

Programme Outcome - PO	
PO-A	An ability to integrate knowledge from the fields of study and arrive solutions for complex engineering tasks.
PO-B	An ability to understand different kinds of problem solving methods through the imparted domain knowledge.
PO-C	To solve a broad research competence problem systematically, to analyze the reasonable value of new ideas and technology decisions with confidence.
PO-D	An ability to empower with an in-depth understanding of research orientation in their chosen domain with a strategy.
PO-E	An ability to design an ICT based system for optimal analysis of systems.
PO-F	An ability to stimulate opportunities to contribute skills thereby providing an option to find applications suiting the revolutionized concepts.
PO-G	To research and implement a project that meets the needs within realistic constraints.
PO-H	To inculcate a desire for continuous learning and creativity, with emerging tools and technology.
PO-I	An ability to understand the responsibility of taking professional decisions based on the impact of socio- economic issues.
PO-J	To develop the self-confidence towards the professional competency with interpersonal skills.
PO-K	To develop a skill in conducting research in their chosen field, and present their results and findings in scientific forums.
PO-L	An ability to deliver inspiring thoughts and show unparalleled commitment.

PROGRAMME SPECIFIC OUTCOME- PSO	
PSO1	The engineers of Applied Electronics, design circuits and develop systems in contemporary and frontier areas of electronics.
PSO2	The enhanced skills of the engineers meet the demands and expectations of automation in various industries.
PSO3	The graduates with professional competency promote and support creative research and developmental activities.

Sl.No	Subject Code	Subject Name
SEMESTER II		
1.	EE2503	Analysis and Design of Analog Integrated Circuits
2.	EE2504	Neural Networks & Applications
3.	EE2505	Digital Control Engineering
4.	EE2506	Advanced Embedded Systems
5.	EC25A7	High Performance Communication Networks
6.	EE25A6	Embedded Analog Interfacing
7.	EE2572	Electronic Design Lab II
SEMESTER IV		
8.	EE25P1	Project Work Phase-II

EE2503 - Analysis and Design of Analog Integrated Circuits	
CO1	Learn the the models for integrated circuit active devices
CO2	Understand current sources, biasing circuits, voltage references and output stages.
CO3	Study of analysis of operational amplifiers.
CO4	Evaluate analog multiplier and PLL circuits
CO5	study the analog design with MOS technology

EE2504- Neural Networks & Applications	
CO1	Describe the basic learning algorithms.
CO2	Understand radial-basis function networks and support vector machines.
CO3	Study the committee machines and neurodynamic systems
CO4	study of attractor neural networks and Adaptive Resonance theory approaches.
CO5	self-organizing maps and pulsed neuron models

EE2505- Digital Control Engineering	
CO1	Demonstrate understanding on the digital PID controllers.
CO2	Apply the signal processing in digital control.
CO3	modeling and analysis of sampled data control system.
CO4	Analysis and design of digital control algorithms.
CO5	Demonstrate the practical aspects of digital control algorithms

EE2506 – Advanced Embedded Systems	
CO1	Understanding the architecture and design of embedded systems
CO2	Understanding the ARM processor architecture
CO3	Demonstrate the Distributed Embedded Architecture
CO4	Analyze the design requirements and the performance of Embedded system.
CO5	Analysis and design of embedded algorithms.

EC 25A7- High Performance communication Networks

CO1	Recollect and know the concepts of packet switching Networks
CO2	Understand the concepts of ISDN Broadband ISDN,SS7 and Protocol
CO3	Understand and remember the concepts of ATM and Frame relay
CO4	Understand the advanced network concepts like MPLS, RSVP
CO5	Understand the concept of Bluetooth ,its protocol ,wireless access and telephony

EE2572– Electronic Design Lab II-EC2572

CO1	Design and Analyse the system using PLL
CO2	Design and simulate the system using CPLD
CO3	Design a model train controller using embedded micro controller
CO4	Design a Elevator controller controller using embedded micro controller
CO5	Simulate Adaptive Digital Control System using MAT LAB control system

EE25A6 – Embedded Analog Interfacing

CO1	Design the measurement system
CO2	Understand c the analog to digital converters
CO3	study the sensors and peripherals
CO4	Evaluate output control methods
CO5	Analysis and design the microcontroller

EE25P1 – Project Work Phase-II

CO1	Demonstrate a sound technical knowledge of their selected project topic.
CO2	Undertake problem identification, formulation and solution.
CO3	Design engineering solutions to complex problems utilising a systems approach.
CO4	Conduct an engineering project
CO5	Demonstrate the knowledge, skills and attitudes of a professional engineer.