

Branch Name:	Information and Communication Technology
Program Code:	ET107
Course Title:	Signals and Systems Practical
Course Code:	2ET1070401P
Pre-requisite:	Basic Mathematics

Course Objectives:

1. To train students for an intermediate level of fluency with signals and systems in both continuous time and discrete time, in preparation for more advanced subjects in digital signal processing, image processing, communication theory
2. To study continuous and discrete-time signals and systems, their properties and representations and methods those are necessary for the analysis of continuous and discrete time signals and systems
3. To study frequency-domain representation and analysis concepts using Fourier analysis tools, Laplace Transform and Z-transform

Teaching and Examination Scheme:

Credit	Teaching Scheme Hours per week				Evaluation Scheme(Marks)								Total (Marks)
					Theory(Marks)				Practical(Marks)				
	L	T	P	Total	SEE		CCA		SEE		CCA		
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1	-	-	2	2	-	-	-	-	10	25	10	25	50

LAB/ Practicals:

#	List of Experiments	Contact Hours
1	Generations of various continuous time signals.	2
2	Generation of discrete time signals and plot them.	2
3	Discretization using different sampling rate and observing aliasing effect.	2
4	Observing the effects of lower sampling rate and higher sampling rate on CT signal.	2
5	Performing various operations on the signal using circuits and computational software.	2
6	Using digital circuit building block to perform operations on signals.	2
7	Simulation of continuous time LTI system.	2
8	Simulation of discrete time LTI systems.	2
9	To study and Perform Convolution operation.	2
10	Computing FT of the CT signals.	2
11	Computing DTFT of the CT signals and DT sequences.	2
12	Computing FT of the DT sequences.	2
13	Computing DTFT of the DT sequences.	2