



# Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India  
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned				
		L	T	P	L	T	P	Total	
ETL601	Discrete Time Signal Processing	--	--	2	--	--	1	1	
		Examination Scheme							Total
		ISE		ESE			Total		
		40		Practical	Oral	10		10	
		10		10		60			

<b>Pre-requisite Course Codes</b>	ETC 602:Discrete Time Signal Processing	
After successful completion of the course, student will be able to		
<b>Course Outcomes</b>	CO1	Explores the Ability to develop programs for various DSP concepts.
	CO2	Explores the Ability to debug programs for various DSP concepts.
	CO3	Ability to Design and analyze the frequency response of digital IIR and FIR filters
	CO4	Ability to analyse the result and document the experiment.

Exp. No.	Experiment Details	Ref.	Marks
1	Signal Manipulation		5
2	Frequency Selective Filter		5
3	Discrete Fourier Transform		5
4	Convolution		5
5	Fast Fourier Transform		5
6	Filtering of long data Sequence using Overlap Add Method		5
7	Filtering of long data Sequence using Overlap Save Method		5
8	Digital Butterworth IIR filter design using Impulse Invariant Method (IIM)		5
9	Digital Butterworth IIR filter design using Bilinear Transformation Method (BLT)		5
10	Linear Phase FIR Filter Design		5
11	Correlation		5
12	Real Time Digital Signal Processing		5
13	Mini Project		5
<b>*Any 08 Experiments to be performed.</b>		<b>Total Marks</b>	<b>40</b>

## References

As per recommended by faculty.