Republic of Iraq Ministry of Higher Education & Scientific Research AL-Mustansiriayah University Faculty of Engineering



Dept.:Computer & Software Engineering Stage 3^{nd} / Course 1^{st} Lecture name:Digital Signal Processing Lecture code: 50605-3102 Hours/Units: 3/2

Course Weekly Outline

Title	Digital Signal Processing
Name	
Course Objective	1- Understand the concepts of DSP subject.
	2- Learn to use the main tools of DSP such as ZT and DFT.
CourseDescription	This course illustrates the basic principles of Digital Signal
1	Processing and includes many important topics in the subject like
	the Z-transform and its properties, Fourier transforms.
Textbook	1- Introduction to Digital Signal processing and filter
	Design By B. A. SHENOI Wiley-Interscience2006
References	1-Digital Signal processing, A Computer-Based
	Approach.
	2 nd Edition, By Sanjit K. MITRA. McGraw-Hill
General Notes	Theoretical 3 hours, 2 hours laboratory

Course Weekly Outline

Week	Topics Covered	Notes
1.	An introduction to DSP	
2.	Signal Sampling and Reconstruction	
3.	Basic Concepts of Digital Signal Processing	
4.	Discrete-Time Signal	
5.	Linear time-invariant (LTI) systems	
6.	Properties of DSP system	
7.	Convolution Methods	
8.	Correlation	
9.	Review & Exam 1	
10.	Z-transform I	
11.	Z-transform II	
12.	Inverse Z- Transform	
13.	Fourier Transform (FT)	
14.	Discrete Fourier Transform	
15.	Exam	