

Two MATLAB assignments will be given. Students are allowed to work in pairs. Both the 1st and 2nd assignment will give 5 extra points each to your final score. Thus, you can earn **10 extra points** from these two assignments.

Deadline for MATLAB Assignment-1: 15 March 2002 at 23:59 <u>Extended Deadline for 1st Assignment upon requests from students</u> Deadline for MATLAB Assignment-2: 29 March 2002 at 23:59

Your report should include the following:

- 1. Brief explanation of your algorithm
- 2. The outputs and
- 3. Your codes.

You must submit your code via e-mail to the course assistant. Remember to write some comments in your m-files to let the reader know about the author(s) of the codes. Without these information, it will not possible to grade the assignment. Please include your information in the hardcopy report also.

The deadline should be strictly observed. The time of submission of your assignment will correspond to the time when you submit your code via e-mail to the assistant. A late submission will cost you 1 point per day. Please inform the assistant well before the deadline if you have any practical problem regarding meeting the deadline.

MATLAB Assignment-2 Deadline 29 March 2002

Design a convolutional encoder with k=2,n=3 and L=4.

Given that $G = \begin{bmatrix} 0 & 0 & 1 & 0 & 1 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 & 0 & 0 & 1 \end{bmatrix}$; you can also choose your own

generator matrix.

Determine the output of your convolutional encoder with at least 5 different combinations of information sequences.

You are not supposed to make use of MATLAB simulink and ready-touse MATLAB building blocks for this assignment. Write the steps all by yourself and make use of MATLAB command line to find out the solutions.