2007 Advanced Coding Theorem HW#2   Due date :2007.04.25

1. Consider LDPC code with

$$\mathbf{H} = \begin{bmatrix} 1 & 1 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 1 & 1 \\ 1 & 0 & 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 & 0 & 1 \end{bmatrix}$$

The initial message is $\{u_v^{(0)}\} = \{1.2, -1, 0.5, 0.2, -1.5, -0.6\}$

Do SPA (Sum-Product Algorithm) with the maximum number of iterations I_{max}=3.

2. Do the max-log-MAP decoding for the example in the slide with the received symbols in the reverse order.