

Course Work

This is the course work requirement. You should design a convolutional code and its hard-decision and soft-decision Viterbi decoders using the given Program Template as the follows.

- 1) Program a convolutional encoder;
- 2) Program hard-decision and soft-decision Viterbi decoders;
- 3) Simulate your program and obtain the bit error rate (BER) performance against the channel signal-to-noise ratio (SNR). (You can use excel or matlab to generate the figure.)
- 4)* Repeat 2) and 3) by programing a BCJR decoder.

Note that 4)* is optional based on your progress and its accomplishment will gain you merit.

If you have any question, please contact me via e-mail: liuwx6@mail2.sysu.edu.cn.