EE252A Term Project:

1. Record a sentence with a sampling rate of 8kHz.
2. Follow the guidelines described in Question 9.4 of Chu’s book (Chu, Wai C. Speech coding algorithms: foundation and evolution of standardized coders. John Wiley & Sons, 2004) to implement an LPC-10 encoder.

Do not quantize the LPC parameters, pitch and gain values (you can store your data in a Matlab file).

1. Design also a decoder which can read stored data and synthesize the speech.

Submit

* A report describing (i) how you made voiced/unvoiced decisions for each frame; (ii) how you determined the pitch period; (iii) plot the time-domain waveform of a voiced frame.
* Submit the original speech and the encoded/decoded speech (audio files)
* Also, comment on the quality of the synthesized speech in your report.
* Submit your Matlab or c codes.
* You can put everything into a zip file.

You can do your term project with a friend (3 people groups are not allowed).

The deadline is Friday 17th, 3:00pm