

## DSP Homework 13

1. Write a summary of this week's video(s) and your further thoughts on the content.
2. Use a digital audio editor (e.g., ardour) to make a one-minute long music song (preferably sung by yourself) with cool sound effects for someone you care about (e.g., parents, grandparents, sibling, friend, etc). Be sure to show your work process and submit your final music file.
3. In wireless communications, the baseband channel can be approximated as an LTI system. Suppose the transmitting signal is  $x(n)$ ,  $n \in [0, N)$ , the channel response is  $h(n)$ ,  $n \in [0, M)$ . In 4G standards, at the receiver we want to receive the result of *circular* convolution  $x(n) \circledast h(n)$ . Design a procedure to achieve this and code to verify your method.