Signal analysis voice dataset
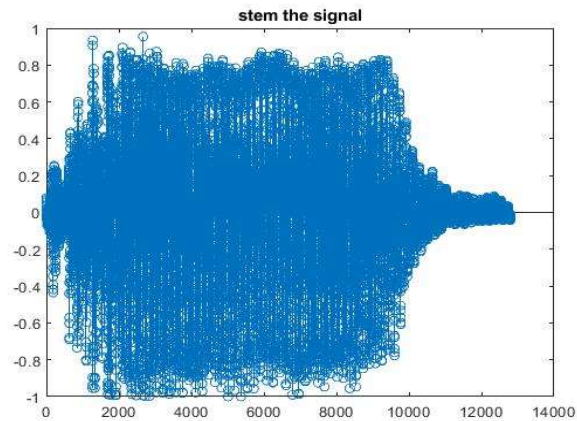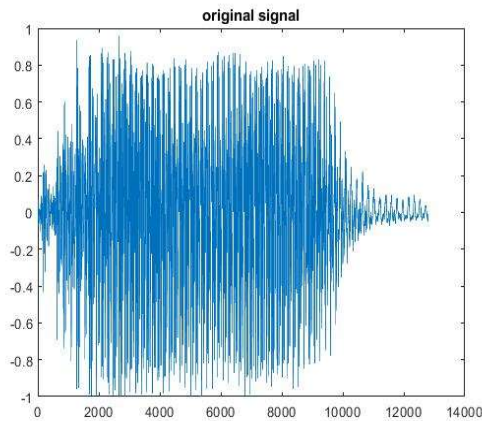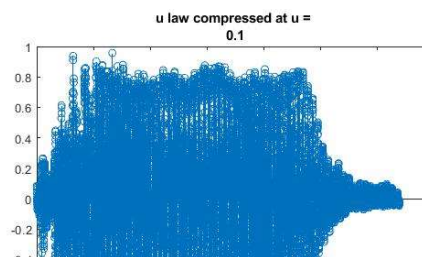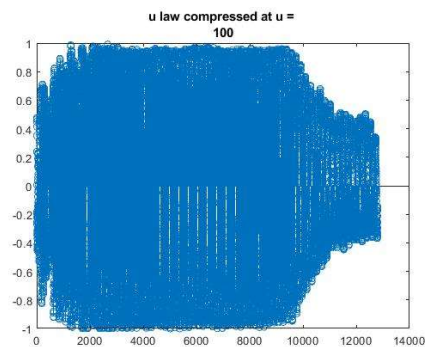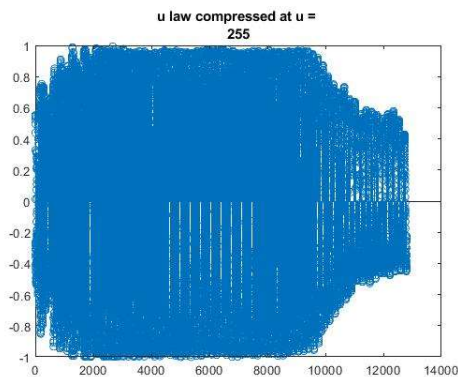
Prepared by

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The sound goes from deep to narrow(male to female to child range)

Original Signal and discrete signal


U law compressor

The last part is basically silence, where the peaks are low, here I want to eliminate these, for this purpose if u law can suppress the values more, that is the goal

u can not be fraction, u is a non-linear non uniform method, which increases sample amplitude for certain lower amplitude, u law compression is not being helpful for particular purpose
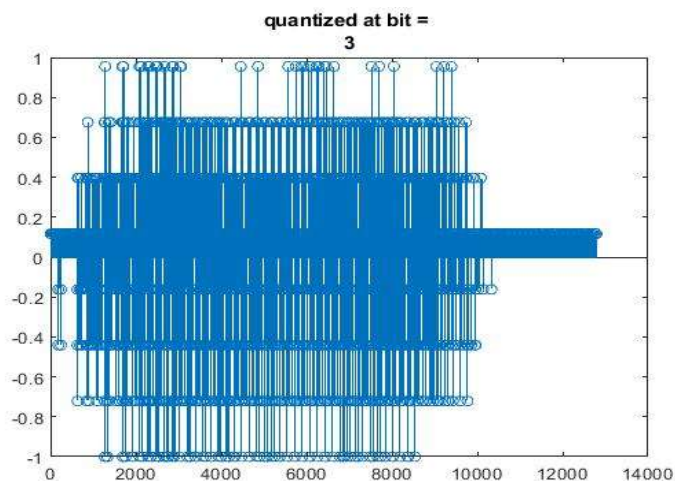
Proposed method

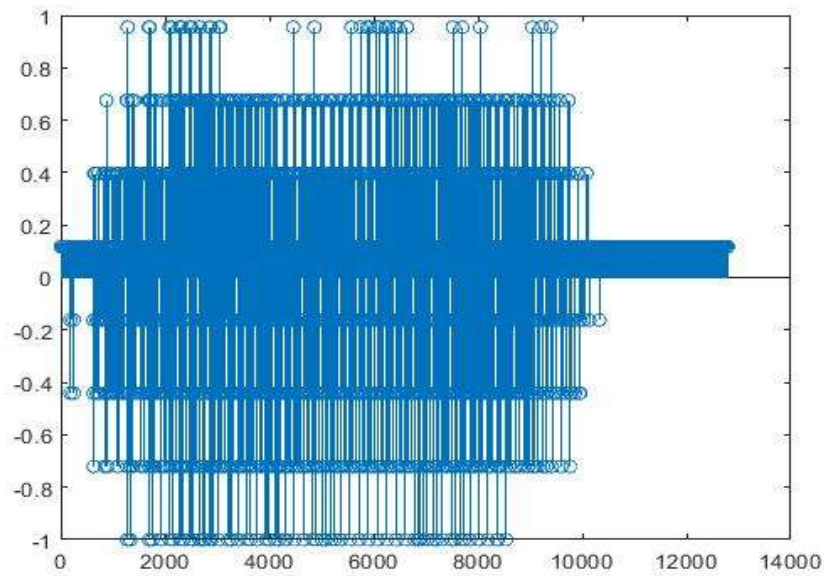To reject the silence part, we will reject the amplitude where we reject the 10% of the max value

stem the signal after rejecting 10%
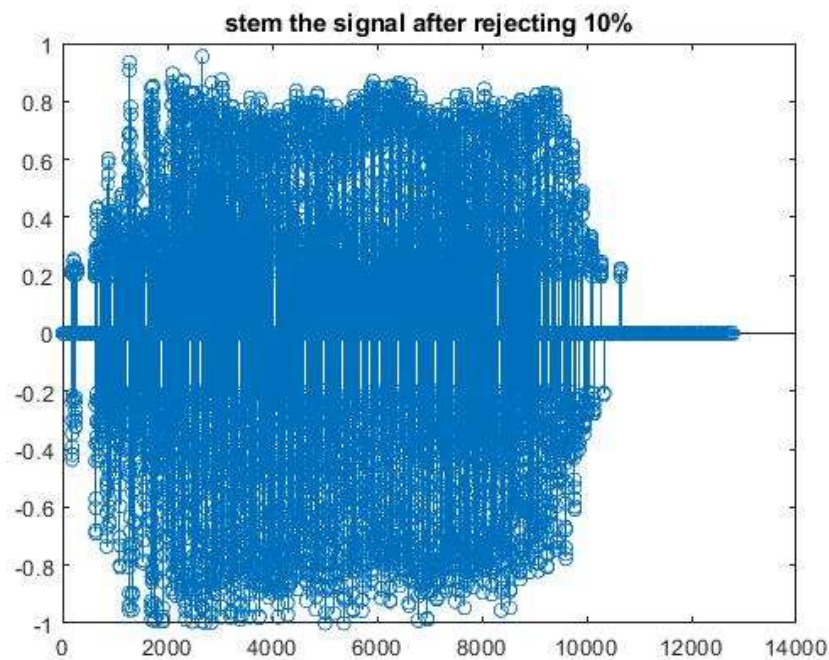
Quantization
Sound is fine when it is quantized at bit 3

quantized at bit = 3

SQNR in experiment: 11.575562159663557

SQNR in equation: 19.7600000000000

Encoded signal

Loose bit

Keeping the first bit is enough