

1. Linear prediction Model:

$$\sum_{i=0}^n a_i s[n-i] = e[n]$$

where

s[n] : Input speech samples

e[n]: Prediction error

$$a_0 = 1$$

a) Linear Prediction coefficients

1.0000	-0.8618								
1.0000	-1.3877	0.6103							
1.0000	-1.3584	0.5437	0.0480						
1.0000	-1.3336	0.8254	-0.6557	0.5180					
1.0000	-1.2099	0.6688	-0.4587	0.1997	0.2387				
1.0000	-1.1223	0.7421	-0.6270	0.4451	-0.2052	0.3669			
1.0000	-1.3125	0.8485	-0.8578	0.7701	-0.5899	0.9487	-0.5184		
1.0000	-1.4520	1.1037	-1.0165	0.9773	-0.8207	1.1770	-0.8715	0.2690	
1.0000	-1.4482	1.0916	-1.0001	0.9659	-0.8071	1.1629	-0.8561	0.2489	
	0.0139								
1.0000	-1.4485	1.0873	-0.9852	0.9457	-0.7931	1.1461	-0.8388	0.2299	
	0.0390	-0.0174							

b) MSE

[1.0000 0.2573 0.1615 0.1611 0.1179 0.1112 0.0962 0.0704 0.0653
0.0653 0.0652]

c) Reflection Coefficients

0.8618 -0.6103 -0.0480 -0.5180 -0.2387 -0.3669 0.5184 -0.2690 -0.0139
0.0174