

RESULTS

GMM Model Syntax : **Delta_NumMixtures_(with/with out)EC**

DELTA	NUM MIXTURES	EC
0 — MFCC 1 — MFCC_Delta 2 — MFCC_Delta_Delta	Number of mixtures used in different GMM's [2, 4, 8, 16, 32, 64, 128, 256]	EnergyCoefficient corresponding to the feature vectors

Different cases considered :

CASE 1	CASE 2	CASE 3
For delta - [0, 1, 2] and 64 mixtures with energy coefficient	For delta - [0, 1, 2] and 64 mixtures with out energy coefficient	For delta - [0] and mixtures - [2, 4, 8, 16, 32, 64, 128, 256] with out energy coefficient

Accuracy & Error Rates :

FLA - Frame Level Accuracy

PER - Phoneme Error Rate

CASE	GMM MODEL	FLA(%)	PER(%)
1	0_064_EC	14.35	87.63
	1_064_EC	18.73	85.47
	2_064_EC	19.33	84.53
2	0_064_noEC	13.26	85.59
	1_064_noEC	17.16	85.47
	2_064_noEC	17.05	85.43
3	0_002_noEC	11.14	86.25
	0_004_noEC	13.81	86.44
	0_008_noEC	13.60	86.67
	0_016_noEC	13.82	86.83
	0_032_noEC	13.76	86.97
	0_064_noEC	13.25	87.11
	0_128_noEC	12.62	87.29
	0_256_noEC	12.12	87.48

****BEST MODEL - MFCC_Delta_Delta using 64 mixtures**