|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Attack | Flute.wav | | Speech.wav | | Newsound.wav | |
| NC | BER | NC | BER | NC | BER |
| Noise addition  AWGN 20 dB | 0.9006 | 0.1123 | 0.9016 | 0.1094 | 0.9038 | 0.1074 |
| Re sampling  44.1-22.05-44.1 KHz | 0.9232 | 0.0879 | 0.9292 | 0.0889 | 1.000 | 0.000 |
| LPF  Cut off frequency 11.025 KHz | 0.9180 | 0.0928 | 0.9131 | 0.0967 | 0.9001 | 0.1123 |
| Re quantization  16-8-16 bits/sample | 0.9186 | 0.0928 | 0.9181 | 0.0918 | 0.8965 | 0.1162 |
| Echo  Delay 0.5s | 0.9096 | 0.1055 | 0.9132 | 0.0977 | 0.9004 | 0.1123 |
| Reverse | 0.9044 | 0.1074 | 0.9133 | 0.0967 | 0.8909 | 0.1221 |
| Mp3 compression  32 kbps | 0.9034 | 0.1084 | 0.9179 | 0.0918 | 0.8967 | 0.1162 |
| Mp3 compression  64 kbps | 0.9103 | 0.1016 | 0.9247 | 0.0840 | 0.9060 | 0.1055 |
| Mp3 compression  128 kbps | 0.9131 | 0.0977 | 0.9227 | 0.0859 | 0.9024 | 0.1094 |

Table: My proposed algorithm.