

Munish S. Ratanpal, Speech processing for binaural dichotic presentation, M. Tech. Thesis, Department of Electrical Engineering, Indian Institute of Technology Bombay, 2000.

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Abstract - Persons with sensorineural hearing impairment experience degraded speech perception due to spectral masking along the cochlear partition. Splitting the speech signal by filtering it with a filter bank and adding signals from alternate bands is likely to reduce the effect of spectral masking and thus help in increasing speech intelligibility. A scheme for dichotic presentation by splitting speech into two signals with complementary spectra on the basis of critical band filters, has been developed and evaluated earlier by D. S. Chaudhari in 1999. This project involves the selection of optimal filter coefficients for the speech processing scheme, implementation and testing of the scheme on a PC interfaced to sound/multimedia card, and development of tools for spectrographic analysis.