A Simple and Efficient Iterative Technique

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Abstract : Literature reported, an efficient and alterative algorithm for the design of a linear phase quadrature Mirror filter Bank (QMF). The proposed algorithm is based on optimum cutoff frequency and perfect reconstruction condition . The prototype filter is designed using different windows based on the roosed algorithm , which is used for designing two channel QMF banks. A comparative study of the performances of different design techniques of QMF banks with the proposed algorithm is carried out . The design examples illustrate the superiority of the proposed algorithm terms of the reconstruction error and number of iterations . It is found that the reconstruction error is minimum with the use of this algorithm . It is also observed that it remains same and minimum even if it is used for designing four or eight band QMF bank based on the tree structure QMF banks