DYNAMICALLY ADDING REDUNDANCY FOR IMPROVED ERROR CONCEALMENT IN PACKET VOICE CODING (WedPmOR1)

Author(s) :

Levent Tosun (McGill University, Canada)
Peter Kabal (McGill University, Canada)

Abstract :

This paper presents a method to improve the performance of redundancy−based packet−loss−concealment (PLC) schemes. Many redundancy−based PLC schemes send a fixed amount of extra information about the current packet as part of the subsequent packet, but not every packet is equally important for PLC. We have developed a method to determine the importance of packets and we propose that redundant information should only be sent for the important packets. This results in a lower average bit−rate compared to sending a fixed amount of extra information, without sacrificing much from the quality of the concealment. We use a linear prediction (LP) based speech coder (ITU−T G.723.1) as a test platform and we propose that only the excitation parameters should be sent as extra information since LP parameters of a frame can be estimated using the LP parameters of the previous frame.

Menu