ERROR RESILIENT MULTIPLEXED CODING WITH RVLC (WedAmPO3)

Author(s):
Xiaosong Wang (Santa Clara University, United States)
Tokunbo Ogunfunmi (Santa Clara University, United States)

Abstract:
A new class of error resilient source code – Multiplexed Code was recently introduced. It takes advantage of the fact that real multimedia signals, such as images, audios and videos, contain heterogeneous information that can be grouped at different priority levels. High priority information is assigned to fixed length codewords; the inherent redundancy is exploited to represent low priority information. In this paper, we introduce an enhanced version – MultiRVLC. It uses Multiplexed Codes with Reversible Variable Length Coding (RVLC) to achieve further error resilient improvement. For example, PSNR is increased by 3.4dB for still images at 5e−3 bit error rate.