High-performance error correction technology
~ Spatially Coupled RA Code ~

Overview

The higher performance error correction is more important for high-speed data transmission, which may have more bit errors due to noises. To avoid performance and reliability degradation due to network packet loss, it is necessary to improve AL-FEC (Application Layer Forward Error Correction). Mobile Techno Corp. has been architecting and implementing various error-correction coding method, including AL-FEC using LDPC (Low-Density Parity-Check).

Features

Spatially Coupled RA (Repeat-Accumulate) coding developed by Mobile Techno Corp. is a kind of LDPC coding. It can achieve coding performance better than Turbo coding and LDPC block coding, and is close to Shannon limit (0.57dB) in various transmission environment.

It uses RA coding that requires less computational power which results in reduced circuit size and power consumption.

Mobile Techno Corp. reported the performance evaluation results in IEICE General Conference 2015.

IEICE: The Institute of Electronics, Information and Communication Engineers

Future applications

- Next Generation Wireless Communications
- Next Generation Optical Communications
- Contents Delivery
- Data Storage
- IoT/M2M devices which require reliable communications

Related Papers

“A Study on Performance of Spatially Coupled RA Code on AWGN Channel” IEICE General Conference, A-6-1, 2015-03
“A Study on LBP Decoding Method in Spatially Coupled RA Code” IEICE General Conference, A-6-2, 2015-03

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