

Cooperative CDD scheme Based on Adaptive Modulation in Wireless Communiation System

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Abstract : Among spatial diversity scheme, orthogonal space-time block code (OSTBC) and cyclic delay diversity (CDD) have been widely studied for the cooperative wireless relaying system. However, conventional OSTBC and CDD cannot cope with change in the number of relays owing to low throughput or error performance. In this paper, we propose a cooperative cyclic delay diversity (CDD) scheme that use hierarchical modulation at the source and adaptive modulation based on cyclic redundancy check (CRC) code at the relays.

Keywords : adaptive modulation, cooperative communication, CDD, OSTBC

Conference Title : ICCCI 2014 : International Conference on Computing, Communications and Informatics

Conference Location : London, United Kingdom

Conference Dates : January 20-21, 2014