

## **An Efficient Strategy for Relay Selection in Multi-Hop Communication**

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**Abstract :** This paper proposes an efficient relaying algorithm to obtain diversity for improving the reliability of a signal. The algorithm achieves time or space diversity gain by multiple versions of the same signal through two routes. Relays are separated between a source and destination. The routes between the source and destination are set adaptive in order to deal with different channels and noises. The routes consist of one or more relays and the source transmits its signal to the destination through the routes. The signals from the relays are combined and detected at the destination. The proposed algorithm provides a better performance than the conventional algorithms in bit error rate (BER).

**Keywords :** multi-hop, OFDM, relay, relaying selection

**Conference Title :** ICDINWC 2016 : International Conference on Digital Information, Networking and Wireless Communications

**Conference Location :** London, United Kingdom

**Conference Dates :** February 25-26, 2016