

Ministry of Higher Education

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University of Diyala

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Communication Engineering Department



Development Of Select Best Partner Technique For Wireless Communication

A Project

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ABSTRACT

In our environment the users distributed randomly and classified based on uplink channel quality into strong user and weak user.

The proposed algorithm produce more substantial improvement of outage probability under worse communication environment , i.e. the algorithm aim to select the best partner (strong user) to coupled with the weak user based on two criteria , the uplink channel quality and inter user channel signal-to-noise ratio (SNR).

We evaluate the performance of algorithm in term of outage probability P_{out} , this can be done by calculate P_{out} to the weak user before and after the coupling process , the improvement will be significantly shown in P_{out} .

After comparing the result with applying algorithm and without applying algorithm we notice the algorithm gives a mean improvement of the P_{out} of more than 0.4 . moreover , it can offer an improvement percentage that ranges from 92.5 to 96.5% this improvement shown when applying algorithm over 100 iterations

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