

ABSTRACT

Towards next generation communication system that expect all devices connected. MU-MIMO is implemented to accommodate mass users for access side. Denseness of transmitted devices will obtain interferences from UE in shared frequency-time resources. LTE system expected as solution employs IC technique like link adaptation with link abstraction as the method to provide BLER accurately in system-level simulations. The BLER is included in CQI as key role feedback where more accurate and faster CQI measurement at the UE side gives more throughput gain for fluctuating condition.

Previous works have proved link abstraction with MIESM has to decide argument minimum adjustment factor as component to process EISNR to obtain BLER. So, this paper proposes link abstraction with MIESM methodology for MU-MIMO LTE with faster feedback to reduce duration of decision process makes feedback sending faster. It is achieved with replace decision process with given look up table. For comparison, the system with decision process method is performed.

Based on result, shown the proposed system has slightly faster duration about 1.66% for dense network scenario and 5.69% for 1 ring fewer network scenario than decision computation process for any scenario in system level simulation. So it is impacted increasing speed of sending feedback to transmitter to decide proper transmission scheme.

Keywords: link abstraction, MIESM, MU-MIMO, BLER, Adjustment Factor