

Robustness of MIMO-OFDM Schemes for Future Digital TV to Carrier Frequency Offset

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Abstract : This paper investigates the impact of carrier frequency offset (CFO) on the performance of different MIMO-OFDM schemes with high spectral efficiency for next generation of terrestrial digital TV. We show that all studied MIMO-OFDM schemes are sensitive to CFO when it is greater than 1% of intercarrier spacing. We show also that the Alamouti scheme is the most sensitive MIMO scheme to CFO.

Keywords : modulation and multiplexing (MIMO-OFDM), signal processing for transmission carrier frequency offset, future digital TV, imaging and signal processing

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020