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Study the Performance of Capacity for SISO, SIMO, MISO and MIMO in Wireless Communication

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Abstract

Due to the rapid development of the wireless communication system, it is highly required a reliable system which can provide higher channel capacity and higher data transmission rates for the users. These are obtained by the Multiple Input Multiple Output (MIMO) systems because the MIMO systems allow the spatial diversity and spatial multiplexing technique due to its multiple antennas at both transmitter and receiver side. The aim of this paper is to discuss and show the capacity performance between SISO, SIMO, MISO and MIMO systems. In this paper, we will mainly be focused on the MIMO system due to its higher capacity and higher data transmission rates properties. For these properties of the MIMO systems, it will be perfectly suitable for modern communication technology.

Author Keywords

Channel capacity, MIMO system, MISO system, SIMO system, SISO system, Wireless communication

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