

Application of MIMO-OFDM Technology in UAV Communication Network

This project analyzes the characteristics of mobile self-organizing network composed of multiple UAVs, and focuses on how to improve the communication quality of UAV network. As the rapid development of UAV, multi-UAVs cooperative self-organizing network can accomplish tasks more reliably, efficiently and economically than a single large UAV. After analyzing the technical principles and system models of Multiple Input Multiple Output (MIMO) and Orthogonal Frequency Division Multiplexing (OFDM) technologies, a MIMO-OFDM communication system is constructed. The simulation results show that the application of MIMO-OFDM technology in UAV communication network can effectively improve the data transmission ability.

Domain: Communications / MIMO Transmissions

Technology: MATLAB