

Design and simulation of beamforming antenna and its application in MANET networks

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Abstract: This topic focuses on the design and simulation of beamforming antennas to optimize signal transmission performance in Mobile Ad Hoc Networks (MANET). The research context is based on the reality that improving mobile data transmission performance is extremely important. The main objective of the topic is to build a simulation system to evaluate technical characteristics and apply beamforming antenna design to MANET. The research method is based on a combination of antenna design theory and simulation experiments, aiming to develop an optimal solution for signal transmission in mobile ad hoc networks. The expected results of this topic will significantly contribute to improving the quality of mobile services and enhancing the availability of MANET systems.

Keywords: Beamforming antenna, MANET, Signal transmission simulation