

Pre-distortion technique to overcome nonlinear distortion in 16-QAM digital communication systems

Dinh Hoang Tung

Abstract: In the increasingly widespread application of 16-Quadrature Amplitude Modulation (QAM) data transmission systems, ensuring high accuracy and performance faces challenges from nonlinear distortion phenomena. This topic focuses on researching predistortion techniques to overcome this issue, thereby improving transmitted data quality. The approach includes both theoretical and experimental studies, applied to 16-QAM digital communication systems. The expected results will make significant contributions to enhancing transmission performance and opening new development directions for modern data transmission technology.

Keywords: Nonlinear distortion, predistortion technique, 16-QAM digital communication system, improved transmission quality.