

Mário Marques da Silva, Rui Dinis, Paulo Montezuma, "Robust FDE Receiver for UWB Systems with Strong Narrow-Band Interference", the eight International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2012), Shanghai, China, 21-23 September 2012.

Abstract: Due to the traditional spectrum overlap with other systems, UWB (Ultra Wideband) signals tend to be subject to interference. In order to mitigate the channel impairments, this paper proposes an iterative receiver combined with SC-FDE (Single-Carrier with Frequency-Domain Equalization) block transmission technique. Moreover, an ARQ (Automatic Repeat ReQuest) error control technique is also adopted, which results in an effective combined scheme to mitigate fading and interference.