HF Diversity Reception and Radio Signal Characterization

One of the aims of the research is to explore the possible exploitation of diversity to improve HF signal reception. Due to its large wavelength, diversity reception is not frequently employed in HF environment. However, HF signal suffers from one of worst fading (and most interfered) possible for wireless communication. In this research, we are studying on the possibility of enhancing the HF signal quality through diversity reception, and its effectiveness in array processing.

To understand fully the performance of a radio, a complete understanding of the characteristics of its transmitted signal is essential. In this research, studies will be conducted to confirm the known characteristics and will propose other possible parameters that can be employed for the characterization.