Antenna Selection Algorithm with Improved Channel Predictor for Vehicular Environment

Author(s) - Institution(s):
Mona, Shemshaki, VUT
Christoph, Mecklenbräuker, VUT

Corresponding author email: mshemsha@nt.tuwien.ac.at

Corresponding WG group: TWGV

Abstract:

Multiple Input Multiple Output (MIMO) systems have become more popular due to the utilization of spatial diversity and spatial multiplexing. In such systems, the cost imposed by increased hardware and complexity is inevitable. Antenna selection is a solution to reduce this disadvantage for MIMO systems.

In this work, we introduce receive antenna selection with channel prediction for Vehicle-to-Infrastructure (V2I) scenario in which the IEEE 802.11p frame structure is extended by additional preambles.