RLS DIRECT EQUALIZER ESTIMATION WITH ASSISTANCE OF PILOTS FOR TRANSMISSIONS OVER TIME–VARYING CHANNELS (MonAmOR12)

✱ Author(s) :

Zijian Tang   (Delft University of Technology, Netherlands)
Geert Leus   (Delft University of Technology, Netherlands)

✱ Abstract :

In this paper, we construct a Decision Feedback Equalizer (DFE) suitable for highly time–varying propagation channels. The DFE is assumed to have a so–called Finite Impulse Response Basis Expansion Model (FIR–BEM) structure. The coefficients of this parametric equalizer are computed in a semi–blind iterative fashion, following a Recursive Least Squares (RLS) approach. Simulation results confirm that the proposed algorithm performs well and can tolerate channel modeling errors.

Menu