APPENDIX C
THE FUNCTION LMS

function h = lms(varargin)

%LMS  Least-mean-square FIR adaptive filter.
%    H = ADAPTFILT.LMS(L,STEPSIZE,LEAKAGE,COEFFS,STATES) constructs an
%    FIR LMS adaptive filter H.
%
%    L is the adaptive filter length (the number of coefficients or taps)
%    and it must be a positive integer. L defaults to 10.
%
%    STEPSIZE is the LMS step size. It must be a nonnegative scalar. You
%    can use the function MAXSTEP to determine a reasonable range of step
%    size values for the signals being processed. STEPSIZE defaults to 0.
%
%    LEAKAGE is the LMS leakage factor. It must be a scalar between 0 and
%    1.
%    If it is less than one, the leaky LMS algorithm is implemented.
%    LEAKAGE defaults to 1 (no leakage).
%
%    COEFFS vector of initial filter coefficients. It must be a length L
%    vector. COEFFS defaults to length L vector of all zeros.
%
%    STATES vector of initial filter states. It must be a length L-1
%    vector.
%    STATES defaults to a length L-1 vector of all zeros.
%
%    See also ADAPTFILT/ALGORITHMS.

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h = adapfilt.lms;
construct(h,[0,5], 'Direct-Form FIR LMS Adaptive Filter', varargin{:});