
```
% LMS procedure for linear classification of two classes
% input
% X:: normalised setup of two category linearly seprable class
% theta:: intial weight vectors
% output
% weights :: if seprable correct weights
function weights = LMS(X,theta,b)

nn= 0.05; % the ita factor

[m,d]=size(X);

limit = 10000 ; % limit in number of loops so if no convergence is found loop stil

for s=1:limit

    for i=1:m
        %temp is the current data point(row vector)
        temp= X(i,:);
        % update step
        theta = theta + nn*(temp')*( b-temp*theta )/(temp*temp') ;
    end

end

%final_weights
weights=theta;

    Error using LMS (line 11)
    Not enough input arguments.
```

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