Optimal route selection in CAIR

Procedure 1: Route Discovery
Inputs: ID of Source node S and destination node D
Outputs: optimal route from source to destination

Begin
if ( ID_D = ID_N )
    forward packet to D;
else
    determine the rectangle restricted searching area;
    \( S_{\text{searching\_area}} = [X_{\text{min}}, X_{\text{max}}, X_{\text{min}}, Y_{\text{max}}] \);
    broadcast RREQ to D in the \( S_{\text{searching\_area}} \);
    Activate (BROADCAST_TIMER);
    calculate route probability of connectivity and packet delay;
    if \( (p_{\text{max}} - p_{\text{other}} > \varepsilon) \)
        return route with the probability of connectivity \( p_{\text{max}} \);
    else
        delete routes with the probability of connectivity \( p_{\text{other}} < p_{\text{max}} - p_{\text{threshold}} \);
        return route with packet delay \( d_{\text{min}} \);
    end if
end if
End of Route Discovery