

```

function [bfspath] = BFSpaht(A,r,d)
m = size(A,1);
ndistance = ones(1,m)*(m+1);
npaent = zeros(1,m);
adj = zeros(m,m);
Q = 0;
stop = false;
% metto la root nella coda
Q(1) = r;
% inizializzo la distanza
currentdistance = 1;
ndistance(r) = currentdistance - 1;
% all'inizio devo analizzare una sola riga, i:
npaent(currentdistance) = 1;
np = 0;
while(length(Q)~=0 && stop == false)
    % quante righe
    for j = 1:npaent(currentdistance)
        p = 0;
        % quante colonne
        k = 1;
        while k<=size(A,2) && stop == false
            if A(Q(1),k) == 1
                % agguirno la distanza
                if ndistance(k) == m+1
                    ndistance(k) = currentdistance;
                    % aggiungo elementi alla coda (solo se non ci sono gia'
                    % stati)
                    Q(length(Q)+1) = k;
                    % agguirno np
                    np = np+1;
                    p = p+1;
                    adj(p,Q(1)) = k;
                    if k == d
                        stop = true;
                    end
                end
            end
            k = k+1;
        end
        % agguirno npaent
        npaent(currentdistance+1) = npaent(currentdistance+1) + np;
        np = 0;
        Q = Q(2:length(Q));
    end
    currentdistance = currentdistance+1;
end
% ricostruisci cammino
if stop==true
    node = d;
    bfspath(currentdistance) = d;
    for l = 1:currentdistance-1
        [row,col] = find(adj==node);
        node = col;
        bfspath(currentdistance-l) = node;
    end
end
end
end

```

Input argument "A" is undefined.

Error in ==> BFSpaht at 2
m = size(A,1);