```
function T = Eang(xout,params)

% Usage: E = Eang(xout,params)
%
% Description: Function takes in the output of the sim and outputs the
% rotational energy of the system as a time series
%
% Inputs:
%   xout    -  7 x n or 12 x n time series of the spacecraft state
 vector
%              where n is the number of time steps
%   params  -  struct of simulation parameters
%
% Outputs:
%   E  -  Rotational energy time series
```

Extract Parameters

```
I = params.sc.IB_b;
```

Calculate Rotational Energy

```
T = zeros(1,length(xout(1,:)));
for i = 1:length(T)
    T(i) = 0.5*xout(end-2:end,i)'*I*xout(end-2:end,i);
end
```

Published with MATLAB® R2019b