Mac-eteli golden
Mechatronics
16/eng05/021

```
commandwindow
clear
clc
syms t
Q= 0.25 * sin (25 * pi * t);
tn=[0:0.0001:0.35];
Qn = subs(Q,tn);
figure(1)
plot(tn, Qn)
xlabel("Time(s)");
ylabel("Charge(Q)");
title("Charge against Time Graph");
grid on
grid minor

V = 0.5 * cos(0.2 * pi * t);
W = V * Q;
Wn = subs(W,tn);
figure(2)
plot(tn, Wn)
xlabel("Time(s)");
ylabel("Work(J)");
title("Work against Time Graph");
grid on
grid minor

figure(3)
plot( tn, Wn,tn, Qn)
xlabel("Time(s)");
ylabel("Charge(Q) & Work(J)");
title("Charge&Work against Time Graph");
grid on
grid minor
legend("Power(W)","Current(A)");
```

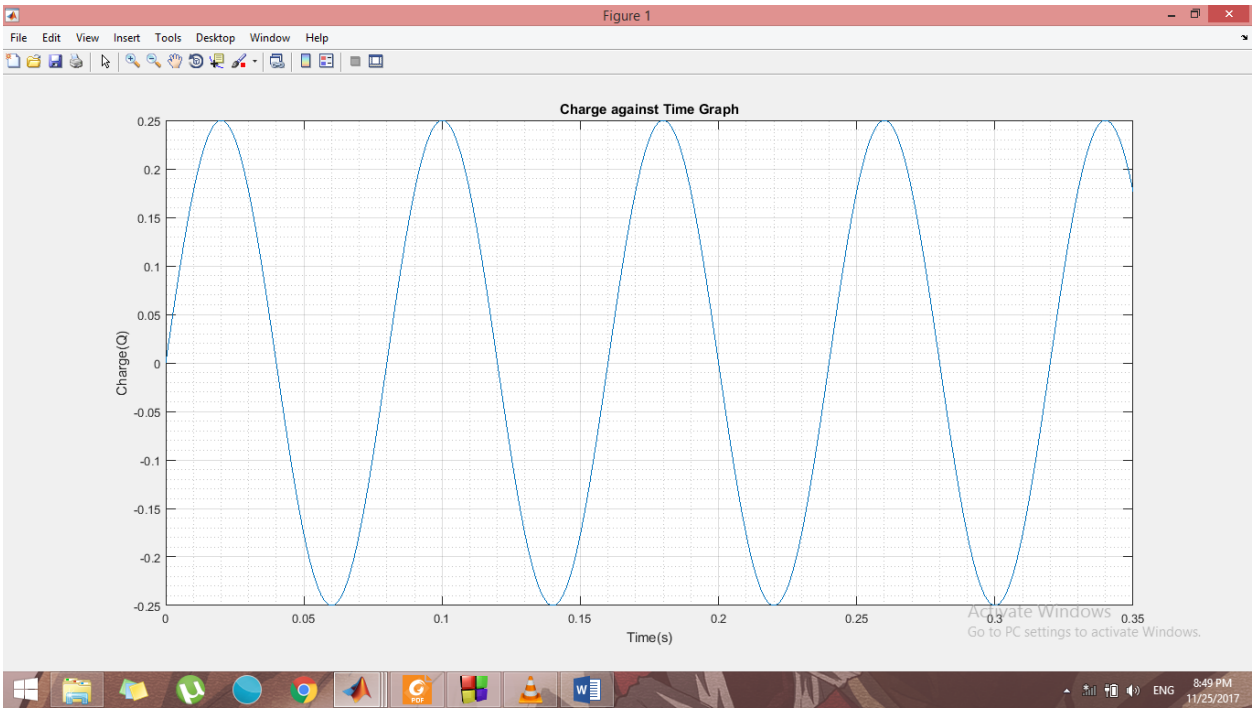
Figure 1
File Edit View Insert Tools Desktop Window Help
Charge against Time Graph
Charge(Q)
Time(s)
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-0.25
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
Activate Windows
Go to PC settings to activate Windows.
ENG
8:49 PM
11/25/2017

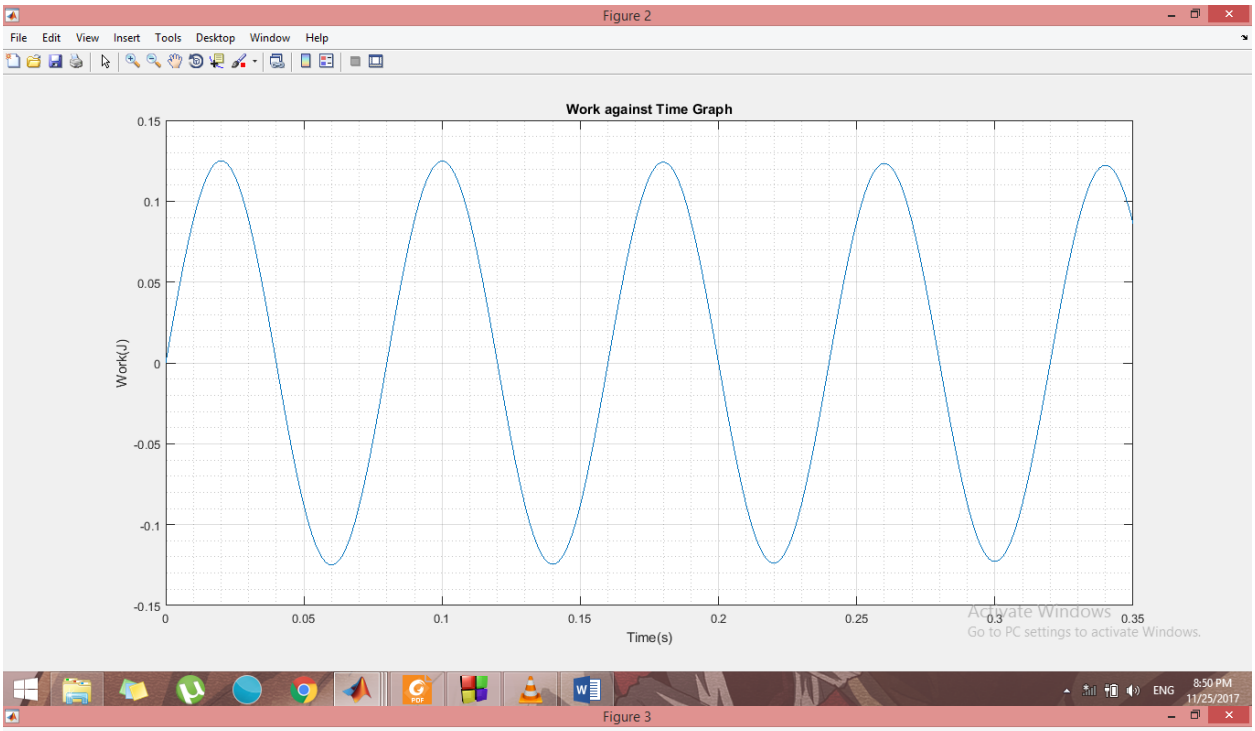
Figure 2
File Edit View Insert Tools Desktop Window Help
Work against Time Graph
Work(J)
Time(s)
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
Activate Windows
Go to PC settings to activate Windows.
ENG
8:50 PM
11/25/2017

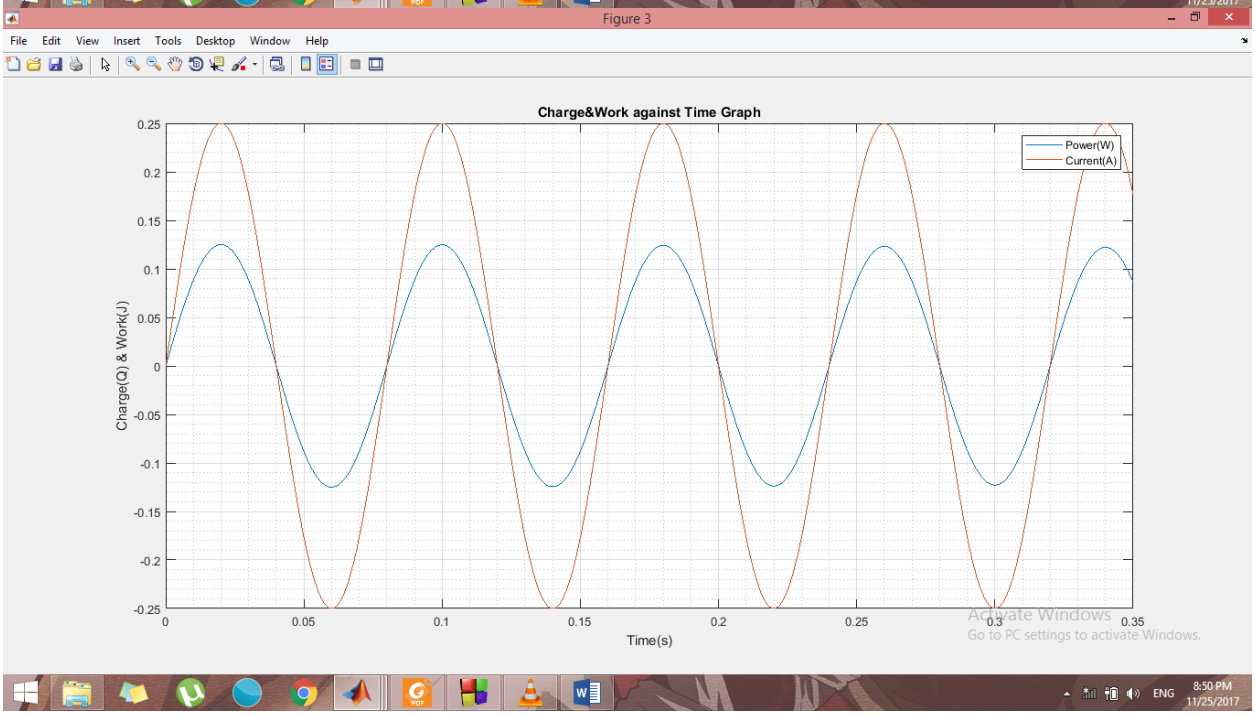
Figure 3
File Edit View Insert Tools Desktop Window Help
Charge&Work against Time Graph
Power(W)
Current(A)
Charge(Q) & Work(J)
Time(s)
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-0.25
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
Activate Windows
Go to PC settings to activate Windows.
ENG
8:50 PM
11/25/2017