```matlab
% Experiment 14
%
% Extraction of Periodic Signal masked by noise using
Correlation

clear all;
close all;
clc;
t=0:0.1: pi*4;
%input signal1
s=sin(t);
subplot(4,2,1)
plot(s);
title('signal s');
xlabel('t');
ylabel('amplitude');
%input signal2
c=cos(t);
subplot(4,2,2)
```

```matlab
plot(c);
title('signal c');
xlabel('t');
ylabel('amplitude');
%generating noise signal
n = randn([1 126]);
subplot(4,2,3)
plot(n);
title('Noise n');
xlabel('t');
ylabel('amplitude');
%signal+noise
f=s+n;
subplot(4,2,4);
plot(f);
title('signal f=s+n');
xlabel('t');
ylabel('amplitude');
%crosscorrelation of signal1&signal2
```

```matlab
asc=xcorr(s,c);
subplot(4,2,5)
plot(asc);
title(' cross correlation of s and c');
xlabel('t');
ylabel('amplitude');
%crosscorrelation of noise&signal2
anc=xcorr(n,c);
subplot(4,2,6)
plot(anc);
title(' cross correlation of n and c');
xlabel('t');
ylabel('amplitude');
%crosscorrelation of f&signal2
cfc=xcorr(f,c);
subplot(4,2,7)
plot(cfc);
title(' cross correlation of f and c');
xlabel('t');
```

```matlab
ylabel('amplitude');
%extracting periodic signal
hh=asc+anc;
subplot(4,2,8)
plot(hh);
title('addition of sc+nc');
xlabel('t');
ylabel('amplitude');
```