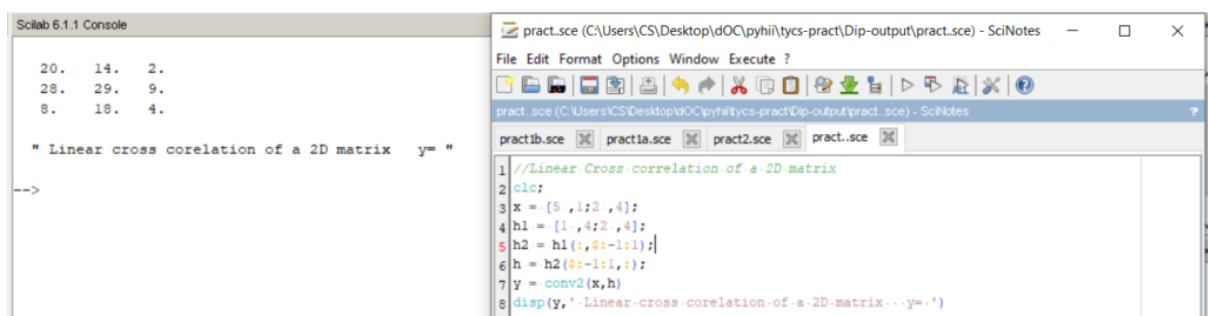**PYHILL**
E D U C A T I O N

Linear Cross correlation of a 2D matrix, Circular correlation between two signals and Linear auto correlation of a 2D matrix, Linear Cross correlation of a 2D matrix

a. Linear Cross-correlation of a 2D matrix.

Code:-

```
//Linear Cross correlation of a 2D matrix
clc;
x = [5 ,1;2 ,4];
h1 = [1 ,4;2 ,4];
h2 = h1(:,$:-1:1);
h = h2($:-1:1,:);
y = conv2(x,h)
disp(y,' Linear cross corelation of a 2D matrix   y= ')
```

Output:-

b. Circular correlation between two signals and Linear auto correlation of a 2D matrix.

Code:-

```
//C i r c u l a r c o r r e l a t i o n be tween two s i g n a l s
clc ;
x = [4,6;2 ,4];
h = [5,4;4 ,1];
h = h (: , $ : -1:1) ;
h = h ( $ : -1:1 ,:) ;
X = fft2 ( x ) ;
H = fft2( h ) ;
Y = X .* H ;
y = fft2 ( Y ) ;
disp (y , 'Circular Correlation result y= ');
```

Output:-
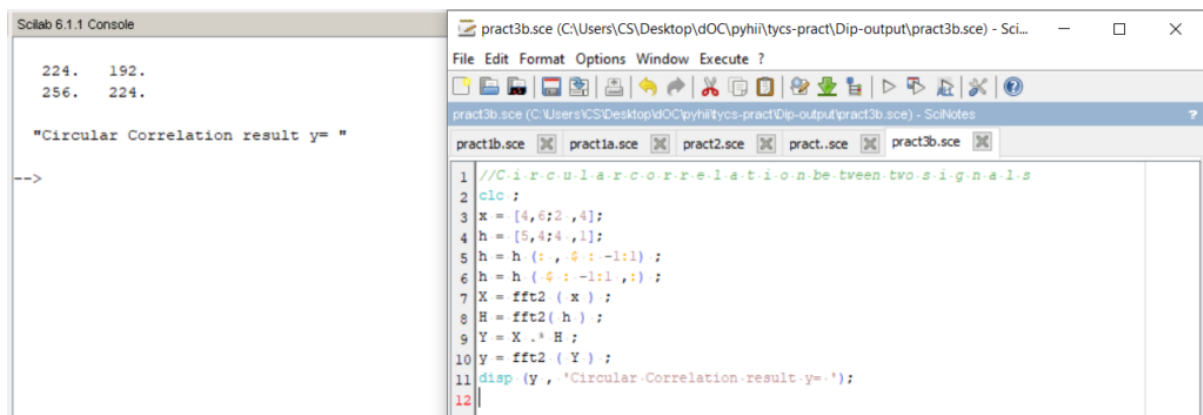
C. Linear Cross correlation of a 2D matrix

Code:-

```
//  linear auto correlation of a 2D matrix .
clc ;
x1 = [3 ,1;3 ,2];
x2 = x1 (: , $ : -1:1) ;
```

```
x2 = x2 ( $ : -1:1 ,:) ;
x = conv2 ( x1 , x2 );
disp (x , 'Linear auto Correlation result x= ' )
```

Output:-

← **PREVIOUS**   **NEXT** →

Practical 2   Practical 4

Practical 1

Practical 2

Practical 3

Practical 4

Practical 5

Practical 6

Practical 7

Practical 8

Practical 9

Practical 10

About Us

Great Quotes

Quick links

Search

Follow us

Welcome to Pyhill Education we will offer interactive python courses. Learn from a team of Pyhill with videos lessons and fun coding challenges and projects. we will also provide Mumbai university computer science BSc-Cs

-> "The best way to predict the future is to create it."

-> To err is human, but to really foul things up you need a computer.

-> "Imagination is more important than knowledge."

Home

BLOG

MUMBAI-UNIVERSITY

AMAZON

OFFERS

ABOUT US

and MSc-
Cs Notes
and
Practicals.
Pyhill
Education.