

List of useful MATLAB commands for data visualization.

■ Codes useful for vector generation.

Generate continuous array of numbers with interval of 1 between a and b.

`a:b`

Generate continuous array of numbers with interval of i between a and b.

`a:i:b`

Generate a matrix of order 3 X 3

`[a b c; d e f; g h i]`

Random number generation between 0 – 1 of order m x n.

`rand(m,n)`

Random integer values between a and b of order m x n

`randi([a b],m,n)`

Generating m equal intervals between a and b.

`linplot(a,b,m)`

Indexing of any matrix. In this example matrix is of order m x n.

Example; `mat = rand (m,n)`

2nd column elements will be- `mat(: , 2)`

3rd row elements will be- `mat(3, :)`

The 2nd row and 3rd column element will be- `mat(2,3)`

#

■ Codes useful for plotting

Line plot:

```
Plot(X_elements,Y_elements,'-or')
```

In place of o you can use other markers such as +, x, * etc.

Scatter plot

```
Scatter(X_elements,Y_elements,'filled')
```

Bar plot

```
Bar(X_elements,Y_elements)
```

Distribution plot

```
Histogram(data, bins)
```

Heatmap

```
Heatmap(matrix,'colormap',autumn)
```

■ Codes useful for editing existing plots

For axis label

```
xlabel('X Axis title (unit)', 'FontSize', 14)
```

```
ylabel('Y Axis title (unit)', 'FontSize', 14)
```

For legends

```
legend('legend1', 'legend2')
```