Date:- 1-6-2020

Name:- G. Ravi Teja

Course:- Digital design using HDL

USN:- 1AC16EC401

Topic:- Industry Application of FPGA

Sem:- 6th B.

* The Impact of FPGA Feature in Industrial Applications is Analyzed in detail in three main areas, namely digital real-time simulation, Advanced Control Techniques and Electronic simulation, Robotics, Power s/m design.

* FPGA Vs ASIC:-

=> A field Programmable gate assay is a semiconductor devices, containing programmable logic components called "logic blocks" and programmable Interconnects.

=> ASIC are designed for a specific Applications they can be optimized to maximum, hence we can have speed in ASIC design.

* Working of FPGA:- If we design a digital circuit more than Anything else, basically, one layer of abstraction above the logic gate level. At the Basic level, you need to Think about you are specifying the layout and equation s at the LUT's and FF's.

* An FPGA is a digital, bcoz these are Analog Mixed-signal aspects to Modern FPGA's.

Ex:- A/D converters and PLL's.

* A FPGA Architecture consists of thousands of fundamental Elements called configurable logic blocks, surrounded by a s/m of programmable Interconnects called fabric.

* Depending on the manufacturer the CLB may also be referred to as logic block (CLB) at logic element (LE) & logic cell (LC).

# Python Repost.

=> Making a basic boolean line graph.

```
# importing Bokeh
from bokeh.plotting import figure
from bokeh.io import output_file, show.
```

* Prepare some data

```
x = [3, 7, 5, 10]
y = [3, 6, 10]
```

* Prepare the o/p file

```
output_file("line.html")
```

* Create a figure object

```
f = figure()
```

* Create a line plot

```
f.triangle(x, y)
```

* plotting Percentage of women who Received an engineering degree over years.

```
# importing bokeh and pandas
from bokeh.plotting import figure
from bokeh.io import output_file, show
import pandas
```

* Prepare some data

```
df = pandas.read_csv("http://pythonhow.com/data.csv")
x = df["Years"]
```

=> Visual Attributes :- After building the basic plot, you can customize its visual attributes Including changing the title colours & format adding labels for x axis, and y axis changing the colour of the axis ticks etc:-

* like above example code was thought.
* For a complete list of visual Attributes, see the styling Visual Attributes documentation page of Bokeh.

---