

DAILY ASSESSMENT FORMAT

Date:	30-05-2020	Name:	M V Ramya
Course:	DSP	USN:	4AL17EC045
Topic:	Fourier transform	Semester & Section:	6th sem, A sec
Github Repository:	M V Ramya-045		

FORENOON SESSION DETAILS



What is a PLC? PLC Basics Pt1

Operator Interface

- SPST Switch
- **Red Indicator**
- **Green Indicator**

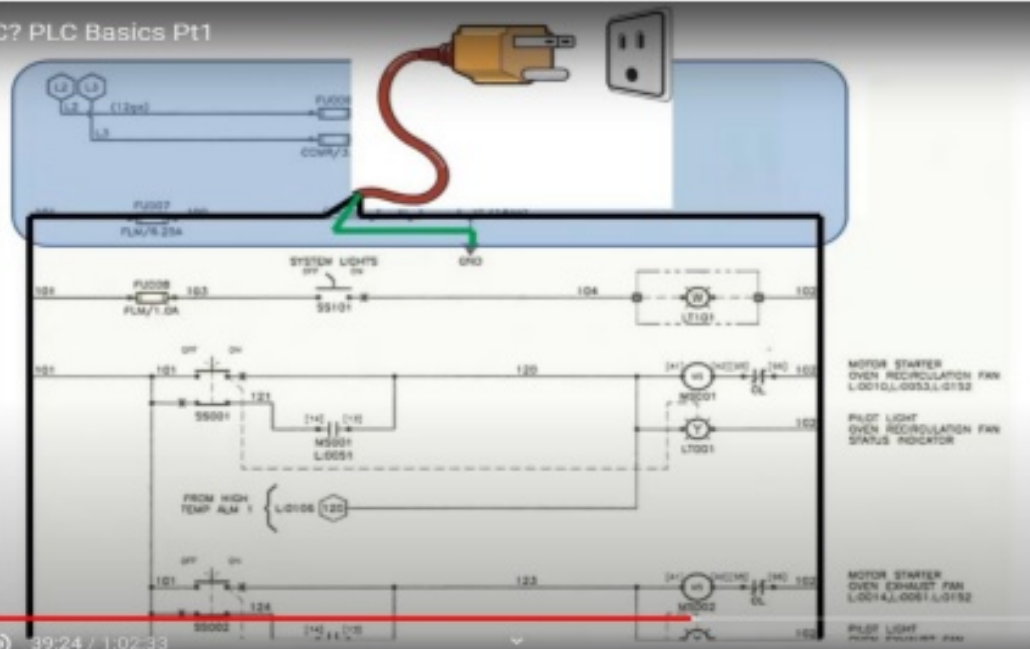
Power Source

- Alternating Current



11:54 / 1:02:33

What is a PLC? PLC Basics Pt1



30/05/2020

- PLC is a special form of microprocessor - based controller. It includes a programmable memory to store instructions and to implement such as logic, sequencing, timing, counting.
- It has a great advantage of choosing the PLC Ladder Diagram.
- A PLC system has the basic functional components of processor unit, memory, power supply unit, input/output interface section, communication interface and the programming device.
- PLC represent such a universal controller.
- The program has been designed on the programming device and then transferred to the memory unit of PLC.
- When the program is completed, the CPU perform internal and communication tasks.
- Also the control program is built of things called instructions.
- It provides the user with a simple means of changing, extending and optimizing control processes.
- If a switch happens to be in same state as its normal state, we know its stimulus must be less than the threshold value.
- If a switch happens to be in opp state as its normal state we know its stimulus has exceeded the threshold value.

Date: 30 May 2020

Name: MV Ramya

Course: python

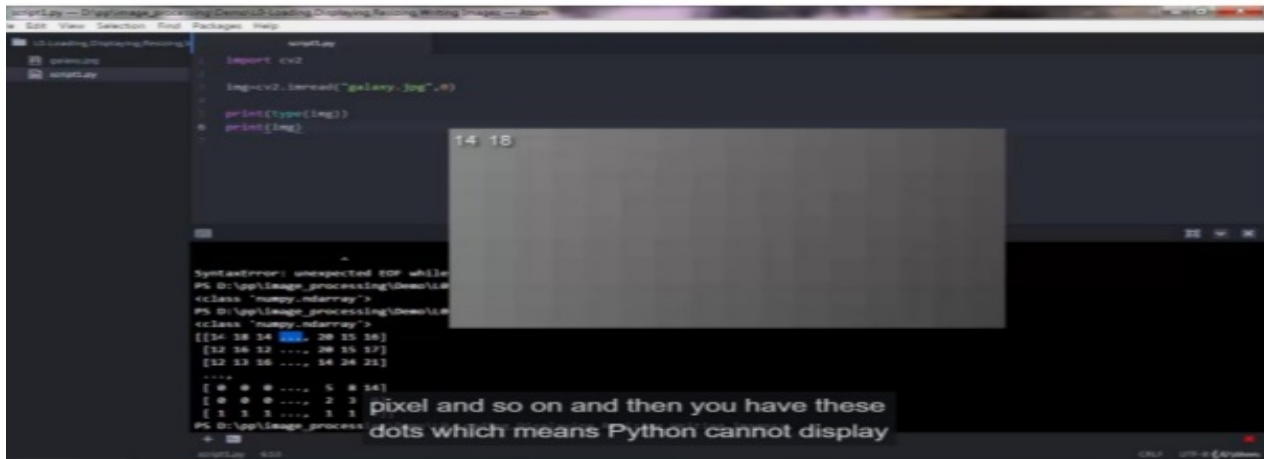
USN: 4AL17EC045



Edit with WPS Office

AFTERNOON SESSION DETAILS

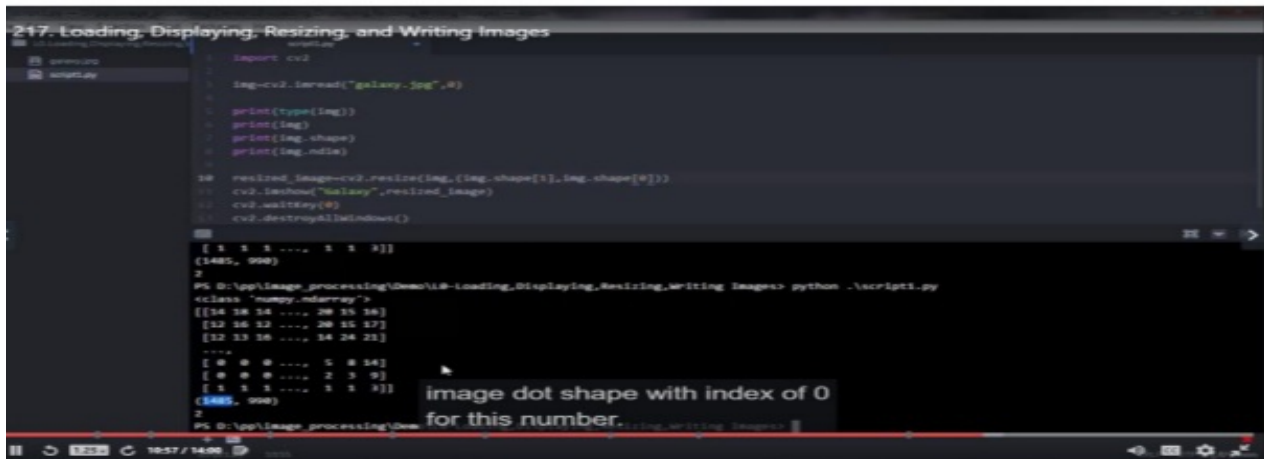
Image of sessio



The screenshot shows a Jupyter Notebook with a script named 'script1.py'. The script imports 'cv2' and loads an image 'galaxy.jpg'. It prints the type and shape of the image. The output shows the image shape as (1485, 990). A text overlay says '14 15' and 'pixel and so on and then you have these dots which means Python cannot display'.

```
script1.py
import cv2
img=cv2.imread("galaxy.jpg",0)
print(type(img))
print(img)

SyntaxError: unexpected EOF while parsing
PS D:\pp\image_processing\Demo\10-Loading,Displaying,Resizing,Writing Images> python .\script1.py
<class 'numpy.ndarray'>
[[14 18 14 .... 20 15 16]
 [12 16 12 .... 20 15 17]
 [12 13 16 .... 14 24 21]
 ....
 [ 0 0 0 .... 5 0 14]
 [ 0 0 0 .... 2 3 9]
 [ 1 1 1 .... 1 1 1]]
PS D:\pp\image_processing\Demo\10-Loading,Displaying,Resizing,Writing Images>
```



The screenshot shows a Jupyter Notebook with a script named 'script1.py'. The script imports 'cv2' and loads an image 'galaxy.jpg'. It prints the type, shape, and size of the image. The output shows the image shape as (1485, 990). A text overlay says 'image dot shape with index of 0 for this number'.

```
217: Loading, Displaying, Resizing, and Writing Images
import cv2
img=cv2.imread("galaxy.jpg",0)
print(type(img))
print(img)
print(img.shape)
print(img.size)

resized_image=cv2.resize(img,(img.shape[1],img.shape[0]))
cv2.imshow("galaxy",resized_image)
cv2.waitKey(0)
cv2.destroyAllWindows()

[[ 1 1 1 .... 1 1 1]]
(1485, 990)
2
PS D:\pp\image_processing\Demo\10-Loading,Displaying,Resizing,Writing Images> python .\script1.py
<class 'numpy.ndarray'>
[[14 18 14 .... 20 15 16]
 [12 16 12 .... 20 15 17]
 [12 13 16 .... 14 24 21]
 ....
 [ 0 0 0 .... 5 0 14]
 [ 0 0 0 .... 2 3 9]
 [ 1 1 1 .... 1 1 1]]
(1485, 990)
2
PS D:\pp\image_processing\Demo\10-Loading,Displaying,Resizing,Writing Images>
```

- The section deals with modelling and replicating human vision using computer software and hardware.
- Computer Vision overlaps significantly with following fields:
 - Image processing - It focuses on image manipulation.
 - Pattern Recognition - It explains various techniques to classify patterns.
- Photogrammetry is concerned with obtaining accurate measurements from images.
- Computer Vision Vs image Processing.
- Image processing deals with image-to-image transformation. The IP and OP of image processing are both images.
- The OP of computer vision is a description or an interpretation of structure in 3D scene.
- Robotics Application
 - Localization - Determine robot location automatically
 - Navigation
 - Obstacle avoidance
 - Assembly (welding, painting)
 - Manipulation (eg. Puma robot manipulator)
 - Human Robot interaction - intelligent robotics to interact with service people
- Medicine Application
 - 2D/3D segmentation
 - Vision guided robotic surgery

Classification and detection

3D human organ reconstruction

Features of Open CV Library

Read and write images

Capture and save videos

Perform feature detection

Detect specific such as faces, eyes, ears, in videos

Analyze the video i.e. eliminate the motion in it,

subtract and background.