

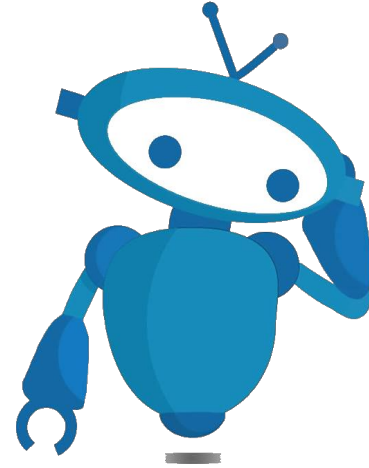
**Robotics club  
presents  
AUTOMATION**





# Robotics till now

- Introduction to Robotics
- Arduino
- Sensors
- Bluetooth module
- Robota'19





**Download python version  
3.7 or less from:**

<https://www.python.org/downloads/>





This module encapsulates the access for the serial port.

To download and install pyserial in python:


- Open command prompt in python/Scripts folder.
- And type the following command  
**pip install pyserial**





# Some Important functions

- `import serial`
- `Ser=serial.Serial('COM3',9600)`
- `x = Ser.read()`
- `line = Ser.readline()`
- `Ser.open()`
- `Ser.close()`
- `Ser.write(b'hello')`
- `Ser.is_open`
- `Ser.name`



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# Computer Vision

Computer vision is an interdisciplinary scientific field that deals with how computers can be made to gain high-level understanding from digital images or videos. From the perspective of engineering, it seeks to automate tasks that the human visual system can do.

## Sub domains of Computer Vision includes

- Image Processing
- Machine Learning
- Deep Learning
- Artificial Intelligence



## Image processing tool/library in python

OpenCV is a library of programming functions mainly aimed at real-time computer vision.



To download and install pyserial in python:

- Open command prompt in python/Scripts folder.
- And type the following command **pip install opencv-python**





# Upcoming next in Robotics

- Opencv workshop
- Winter Camp
- Vision'20
- Technex'20

