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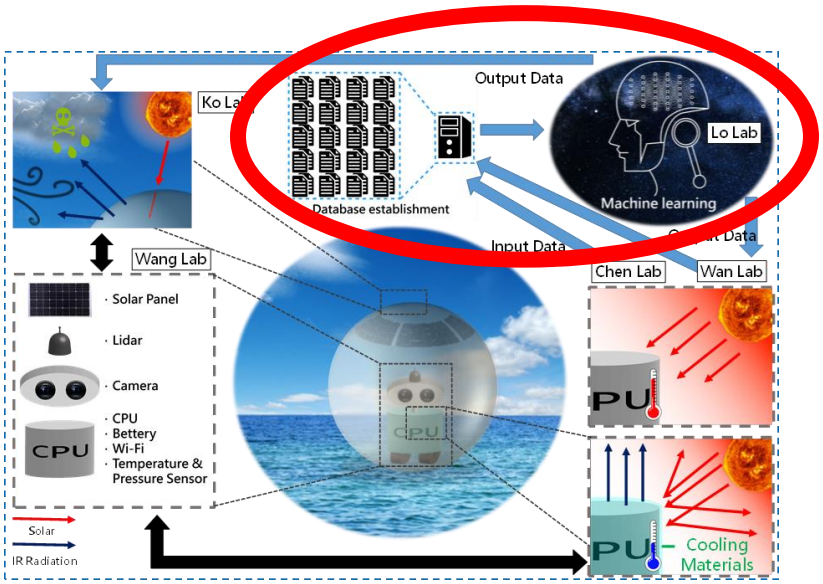
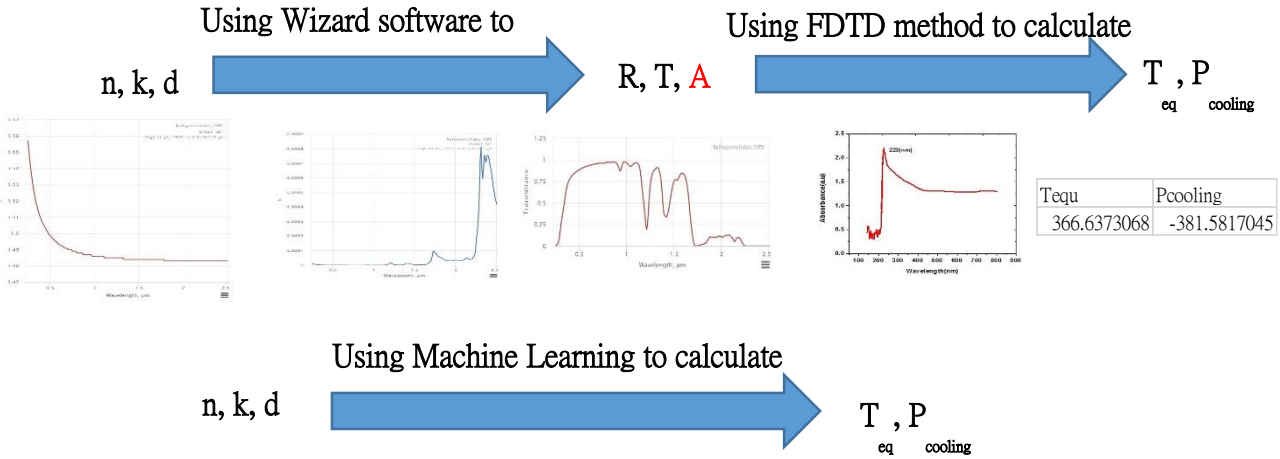
**Machine Learning on Material Informatics**
**Development Environment For Machine Learning**
# 20190305-Homework 01

**SOLUTION**

**Summary**

1. Project Name:
   Application of intelligent bionic materials to spherical surface robots
2. Subproject name:
   - MGI database and optimization of material properties aims:
   - Use the simulated data to train the AI to complete the material database.
   - Establish and give the best parameters for a spherical surface robot




- **Number of data:**

A total of 30 kinds of materials (30 kinds of n, k) * 10 thicknesses each
300 groups in total

**Note:**

**n** : Refractive index
**k** : Extinction coefficient
**d** : Test piece thickness
**R** : Reflectivity
**T** : Penetration rate
**A** : Absorption rate
**Teq** : Equilibrium temperature
**Pcooling**: Cooling power

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# 20190305-Homework 02

## TASK

**Ex 1: call random function 10 times only to generate 10 random numbers between 0~9**

## SOLUTION

```
import random

N = 10
start = 0
stop = 10

for i in range (N) :
    num = random.randint(start, stop)
print (num)
```