e-Yantra Robotics Competition (eYRC-2018)

Task 0 – Homecoming

Welcome to Task 0 of Homecoming ! The aim of this task is to get you started with installation of required software and learn the resources related to the software.

This task is divided into four parts:

- Software/Libraries Installation

- Testing the Setup

- Learning Resources

- Performing an Assignment

You will find the following folders in **Task 0** that contains this **Read Me** file.

- *1. Installation_Instructions*

    o Please find the following files in this folder:

        ▪ Python_OpenCV_PyTorch_Ubuntu_Installation.pdf

        ▪ Python_OpenCV_PyTorch_Windows_Installation.pdf

    o Follow the instructions in these files to install the following software/libraries:

        ▪ Anaconda for Python 3

        ▪ OpenCV

        ▪ PyTorch

        ▪ Visual Studio Code

- *2. Test_Setup*

    o Please find the following files in this folder:

        ▪ Test_Setup_Read_Me.pdf

        ▪ test_setup.py

        ▪ cardinal.pyc

o Follow the instructions in the **Test_Setup_Read_Me.pdf** file to test the software/libraries installed and complete the **Task 0** successfully.

- *3. Resources*

   o Please find the following file in this folder:

      ▪ Introduction_to_Machine_Learning.pdf

   o Follow the instructions in this file to learn about

      ▪ Machine Learning and Deep Learning

      ▪ Types of Machine Learning Algorithms

      ▪ Flow of implementing a Machine Learning Algorithm

      ▪ Common Machine Learning Terminologies

      ▪ Common Machine Learning Algorithms

- *4. Assignment*

   o Please find the following files in this folder:

      ▪ Getting_Started_with_Assignments.pdf

      ▪ Tutorial_and_Assignments.ipynb

   o Follow the instructions in the **Getting_Started_with_Assignments.pdf** file to understand the basic usage of some libraries installed and steps for getting started with opening and working on Jupyter Notebook. The tutorial provided in the **Tutorial_and_Assignments.ipynb** will help you in solving the Assignments.

…Best Wishes ! …