

IA 3018 – Data Acquisition Systems

Project (20% of Total marks)

Design and Development of a Data Acquisition System

1. You are supposed to implement a data acquisition system using Lab View, MATLAB, JAVA or Python tools. It should have the following functionalities.
 - a. The desktop application should be able to connect with a microcontroller (Arduino, etc).
 - b. Read an analog data like temperature and visualize it in the desktop application (Live graph would be ideal).
 - c. Operate an actuator using the desktop application (e.g., Fan).
2. You can refer to the shared practical sessions to implement the system. Even though they are MATLAB based, you can use any programming language.
3. You can add additional functions and 20% of the project marks is allocated for them (for e.g., you can use prevailing communication protocols such as CAN, Modbus, etc for communication).