**ASSIGNMENT 1**

1. What is data enrichment and consolidation?
2. What is architectural view?
3. What are some of the main differences between the following:
4. Arduino and raspberry Pi
5. Sensors and actuators
6. Zigbee and 6LOWPAN
7. NFC and RFID
8. IPV4 and IPV6

4. Explain IOT application layer protocols : HTTP, CoAP and MQTT.

5. Explain an embedded system on an IoT device.

6. What is M2M communication? Justify the statement with an illustrative scenario: "IoT is much more than M2M communication".

7. Describe the design principles for connected devices

8. Explain Modified OSI Stack for the IoT/M2M Systems.

9. Justify the role of IoT in Smart Home applications in detail by choosing appropriate case study.

10. What is the purpose of using UART in microcontroller communications, and how does it differ from SPI and I2C.

11. Write an Arduino program to motion sensing LED bulb. Also list and explain the different components required.

12. What are the typical ranges and applications of wireless technologies like WiFi, Bluetooth and Zigbee in IOT?

13. What are the advantages in using Arduino over other microcontroller platforms?