**UNIVERSITY OF RWANDA**

College of Science and Technology

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**African Center of Excellence in Internet of Things**

**(ACEIoT)**

**Masters in IoT: ECS**

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**Module: SMART SENSORS & ACTUATORS**

**Assignment No: 0**

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1. Create a mind map on applications for IoT

**Ans:**

**Smart industry:** process monitoring and control, explosive and hazardous gas monitoring, maintenance and repairing monitoring etc.)

**Smart transportation and logistics:** (fleet management, Goods tracking etc. etc.)

**Smart Health:** (patients surveillance monitoring,Medical fridges monitoring, etc.

**Smart energy:** (smart metering, smart grid management, smart street light etc.)

**Smart cities:** (smart parking, waste management etc.)

**Smart Homes:** (smart home appliances, remote control appliances, smart lightning etc.,

**Smart living:** weather monitoring, air pollution monitoring, water quality monitoring etc.)

**Smart agriculture:(** smart irrigation, green house monitoring, etc.)

**Animal tracking**

1. Write your expectations from this class and also what is your goal in life.

**Ans:**

At the end of this class I expect to be able to demonstrate knowledge and skills on

* Concepts of sensors and actuators along with their characteristics, specifications and uses
* Interconnection and working principle of different components of sensors and actuators
* Sensor and actuator technologies
* Localization and tracking of sensors
* Tasking and control of sensors as well as different connectivity families
* Use sensors and actuators for designing IoTs applications
* Understand different functioning of sensors and actuators
* Describe sensors, actuators in IoT environment
* Demonstrate a critical understanding of sensor communication protocols
* Develop a sense for recognizing irrelevant data and solving related problems
* Demonstrate problem solving skills related to sensors and actuators for IoT system
* Carry on independently investigation on sensors and actuators in IoT systems of collected data
* Effectively retrieve information from a variety of sources

my goal in life is to become an IOT engineer no matter what it will cost to me. To achieve this will help me to make my dreams comes true.