**COEN296 : Internet of Things** - Course Outline for ARM mbed IoT Module

**From Edge to Cloud using IoT Standards and ARM mbed**

11 October - Introduction and Demonstration:

1. Introduction

Reference Architecture - device to cloud, gateway to cloud

Layers and Protocols - Standards

Arm mbed mapping onto architecture and Standards

1. Project

Project Challenge - Assisted Living

Project technology framework - mbed IDE, mbed Device Server, dev boards, ethernet + WiFI, BLE using Android device, grove system sensors and how they work

1. Demonstration

Demonstration and walk-through step by step

1. Lab unit 1

Programming an mbed device and connecting to the cloud

Lab notes - step by step:

mbed account

import project

compile and download to platform

verify registration with mbed Device Server

serial debug messages indicating success

check with mDS admin interface

using a REST client to read value from mDS