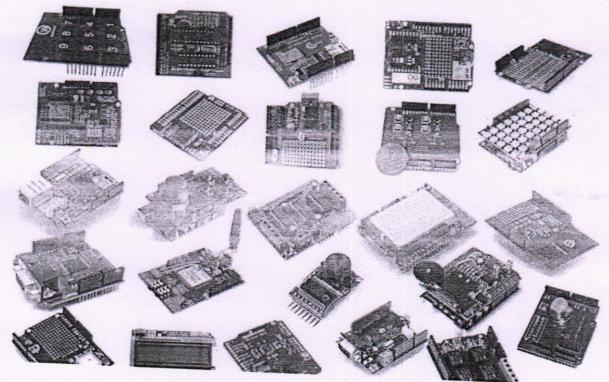




Interfacing with the Arduino

Arduino senses the environment by receiving inputs from add-on devices such as sensors, and can control the world around it by adjusting lights, motors, and other actuators. In this class you will learn how and when to use the different types of sensors and how to connect them to the Arduino. Since the external world uses continuous or analog signals and the hardware is digital you will learn how these signals are converted back-and-forth and how this must be considered as you program your device. You'll also learn about the use of Arduino-specific shields and the shields software libraries to interface with the real world. Please note that this course does not include discussion forums.



Module 1

IoT devices involve a combination of software and hardware. This module provides background on the basics of hardware design and wiring needed to build useful circuits. This module describes the functions of basic passive components and describes how to use them in simple circuits. This module also describes how to wire circuits together using a breadboard. The goal of this module is to enable students to design and implement the circuits they need to interact with basic sensors and actuators.

PRINCIPAL

10/3/2012 HOD

SIMS-Proposal for Embedded – IoT based on Arduino/Raspberry Pi/C++

SIET, Tumkur-6

Dept of E&C