

Embedded Laboratory (Syllabus)

- **LAB 1:**
 - Introduction to RPI
 - RPI's hardware and software platform
 - introduction to Python
 - blinking led demo
- **LAB 2**
 - Set a static IP for raspberry pi
 - RPI-Arduino connection protocols (advantages and disadvantages, speed, used pins, synchronization)
 - SPI
 - I2C
 - USB
 - I2C connection demo
- **LAB 3**
 - Introduction to Internet of things
 - Definition
 - Applications
 - Threat/Challenges vs. Opportunity/advantages
 - IOT Platforms
 - APIs (RESTfull APIs)
 - ThingWorx and ThingWorx APIs
 - Demo

useful links:

- <https://www.guru99.com/iot-tutorial.html>
- <https://developer.thingworx.com/en>