

 NIIST BHOPAL		NRI INSTITUTE OF INFORMATION SCIENCE & TECHNOLOGY DEPARTMENT NAME: <u>COMPUTER SCIENCE AND ENGINEERING</u>		FORM NO NIIST/A/10
BRANCH CSE		<u>LIST OF EXPERIMENTS</u>		REV. NO 0
SEMESTER VIII				REV. DT 30/06/2011
SUBJECT NAME: Internet of Things				
SUBJECT CODE: CS 801				

1	Familiarization with Arduino/Raspberry Pi and perform necessary software installation
2	To interface LED/Buzzer with Arduino/Raspberry Pi and write a program to turn ON LED for 1 sec after every 2 seconds
3	To interface Push button/Digital sensor (IR/LDR) with Arduino/Raspberry Pi and write a program to turn ON LED when push button is pressed or at sensor detection.
4	To interface Bluetooth with Arduino/Raspberry Pi and write a program to send sensor data to smartphone using Bluetooth.
5	To interface Bluetooth with Arduino/Raspberry Pi and write a program to turn LED ON/OFF when '1'/'0' is received from smartphone using Bluetooth.
6	To install MySQL database on Raspberry Pi and perform basic SQL queries.
7	Write a program on Arduino/Raspberry Pi to publish temperature data to MQTT broker.
8	Write a program on Arduino/Raspberry Pi to subscribe to MQTT broker for temperature data and print it.
9	Write a program to create TCP Server on Arduino/Raspberry Pi and respond with humidity data to TCP client when requested.
10	Write a program to create UDP Server on Arduino/Raspberry Pi and respond with humidity data to UDP client when requested.



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BRANCH	CSE				
SEMESTER	VIII				
SUBJECT NAME: Cloud Computing		SUBJECT CODE: CS 804			

1	Install Virtualbox/VMware Workstation with different flavours of linux or windows OS on top of windows7 or 8.
2	Install a C compiler in the virtual machine created using virtual box and execute Simple Programs
3	Install Google App Engine. Create hello world app and other simple web applications using python/java.
4	Use GAE launcher to launch the web applications.
5	Simulate a cloud scenario using CloudSim and run a scheduling algorithm that is not present in CloudSim.
6	Find a procedure to transfer the files from one virtual machine to another virtual machine
7	Find a procedure to launch virtual machine using trystack (Online Openstack Demo Version)
8	Install Hadoop single node cluster and run simple applications like wordcount.

