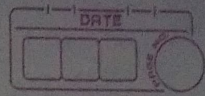


# Experiment No: 6



Aim: understanding and connectivity of Raspberry-Pi / Beagle board with a Zigbee module. Write a network application for communication between two devices using Zigbee.

Theory:

Zigbee is a communication device used for the data transfer between the controllers, computers system really anything with a serial port. As it works with lower power consumption, the transmission distance is limited to 10-100 Meters line-of-sight. Zigbee devices can transmit data over long distances by passing data through a Mesh network of intermediate devices to reach more distances ones. It's Main applications are in the field of wireless sensor network based on industries as it requires short-range low-rate wireless data transfer. The technology defined by the Zigbee specification is less expensive than networks.

Here we make of zigbee with Raspberry wireless communication. got power USB ports, so it zigbee Dongle for this want to check the between the two paired intended to be simpler other wireless.

use of an interface. Pi2 for a proper Raspberry Pi2 has is better to use a interface. Now we communication Zigbee Modules.

Interfacing of zigbee fig. 1





## Python Script to perform zigbee Communication.

```
import serial
# Enable USB Communication
ser = serial.Serial('/dev/tty USB0',
                    9600, Timeout=.5)
while True:
    ser.write('Hello user!\n')
    # write a Data
    incoming = ser.readline().
        strip()
    print 'Received Data:' +
        incoming.
```

### Conclusion:

Thus we have done zigbee Communication between two Raspberry Pi devices.