**Bsc IT Practical List**

1. Starting Raspbian OS, Familiarizing with Raspberry Pi components and interface, Connecting to ethernet, Monitor, USB
   * Done – (Installation Images with Supporting software is given in Pen drives)
2. Displaying different LED patterns with raspberry Pi
   * Done (Code File is attached LedPattern.py)
3. Displaying Time over 4 Digit 7 Segment display using Raspberry Pi

* <https://circuitdigest.com/microcontroller-projects/raspberry-pi-7-segment-display-tutorial>

1. Raspberry Pi based Oscilloscope
   * <https://circuitdigest.com/microcontroller-projects/raspberry-pi-based-oscilloscope>
2. Controlling Raspberry Pi with Whatsapp or telegram
   * Done with Telegram – Code file is attached TelegramRaspberry.py
   * <https://www.mepits.com/project/313/raspberry-pi/raspberry-pi-projects-whatsapp-on-raspberry-pi> (Whatsapp Link)
3. FingurePrint Sensors using Raspberry Pi

* <https://tutorials-raspberrypi.com/how-to-use-raspberry-pi-fingerprint-sensor-authentication/>
* <https://www.raspberrypi.org/blog/raspireader-fingerprint-scanner/>

1. Setting up wireless Access Point using Raspberry Pi
   * Done - (Coding Files are attached install.sh and ap.sh with installation steps)
2. Raspberry Pi GPS module interfacing
   * <https://circuitdigest.com/microcontroller-projects/raspberry-pi-3-gps-module-interfacing>
3. IoT based web Controlled Home Automation using Raspberry Pi
   * Done – Coding files are attached –
     + PiR Motion Sensors – PirSensor.py
     + DTH11.zip
   * <https://www.hackster.io/hardikrathod/pir-motion-sensor-with-raspberry-pi-415c04>
   * For Web Controlled Part Lamp Server Installation Needed
4. Visitors Monitoring with Raspberry Pi and Pi Camera
   * Done – Configuration and Installation of Motion sensors – Pdf file is attached
   * <https://circuitdigest.com/microcontroller-projects/raspberry-pi-surveillance-camera>
5. Interfacing Raspberry Pi with RFID
6. Building Google Assistant with Raspberry Pi
7. Installing Windows 10 IoT Core on Raspberry Pi
   * <https://www.windowscentral.com/how-install-windows-10-iot-raspberry-pi-3>
   * Steps file is attached