Table of Contents

**About the Training**

**Chapter 1: Overview of Python and Raspberry Pi**

Basics of Python Programming…………………………………………………………...1

Overview and Introduction to Raspberry Pi

* Getting Started……………………………………………………………………2
* Hardware…………………………………………………………………………3-7
* Software…………………………………………………………………………. 8

**Chapter 2: Sensors, Displays and their working**

* PIR Sensor…………………………………………………………………… 9
* Load Cell………………………………………………………………………10
* 16\*2 LCD……………………………………………………………………. 10-11
* Ultrasonic Sensor……………………………………………………………. 11-12
* Bluetooth Sensor……………………………………………………………...12

**Chapter 3: Interfacing Sensors with Raspberry Pi**

* Interfacing PIR sensor with Raspberry Pi……………………………………13-14
* Interfacing 16\*2 LCD with Raspberry Pi…………………………………….14-16
* Interfacing Load Cell with Raspberry Pi…………………………………….16-17
* Interfacing Ultrasonic sensor with Raspberry Pi…………………………… 17-19

**Chapter 4: Project-” Smart Dustbin”**

* Project Description………………………………………………………….20-21
* Working……………………………………………………………………...22

**Extras**……………………………………………………………………………………. 23

**References**………………………………………………………………………………. 24