# IOT Security Penetration Testing Syllabus

### Module 1: Overview of IOT Penetration Testing      2 Hours - 4 Topics
- Defining the IoT (Day 1)
- Cyber security versus IoT security (Day 1)
- IOT Growth Trends (Day 1)
- IOT Device Architecture (Day 1)

### Module 2: Preparing theLab      4 Hours - 5 Topics
- Get to know Your Arsenals (Day 2)
- Setting up pentesting VM (Day 2)
- SDR Lab Setup (Day 2)
- BLE lab Setup (Day 3)
- Hardware & Software Requirements (Day 3)

### Module 3: Understanding the need for IOT Security      2 Hours - 5 Topics
- The importance of Data (Day 4)
- Wearable Technology (Day 4)
- Home security/automation systems (Day 4)
- Connected Cars (Day 4)
- Smart Meters (Day 4)

### Module 4: Getting Started with SDR Hacking      10 Hours - 2 Topics
- SDR basics (Day 5 & 6)
- SDR live Hacking (Day 7, 8 & 9)

### Module 5: GNU Radio      10 Hours - Day 10 to 14

### Module 6: GSM hacking Building blocks      10 Hours - Day 15 to 19

### Module 7: Radio hacking Building Blocks      10 Hours - Day 20 to 24

### Module 8: Car Pentesting      10 Hours - Day 25 to 29

### Module 9: ARM and MIPS Reversing      6 Hours - 2 Topics
- Analyze APK at run time (Day 30)
- Common tools & techniques (Day 31 & 32)

### Module 10: Extract and analyze device firmware's      8 Hours - 1 Topic
- Different tools & Techniques for Firmware Exploitatio (Day 33 to 36)

### Module 11: IOT OWASP Top 10      8 Hours - Day 37 to 40

**Module 12: BLE Pentesting**                    **4 Hours - Day 41 & 42**

**Module 13: Write exploits for the different IOT platform**    **4 Hours - Day 43 & 44**

**Module 14: IOT Reporting Techniques**           **2 Hours - 1 Topic**

- **IOT penetration Test Report (Day 45)**