



Python for Electronics & Automation – 4 Weeks



Week 1: Python Basics

- Variables, Loops, Functions
- Working with Lists, Dictionaries
- File Handling & Exception Handling



Week 2: Electronics Control with Python

- GPIO & Serial Communication (via Arduino or Pi)
- Controlling LEDs, Motors, Relays
- Real-time Sensor Data Display



Week 3: Data Logging & Automation

- Storing Sensor Data in CSV/Excel
- Scheduling Tasks with Python
- Python & Excel Automation (openpyxl)



Week 4: GUI & Application Building

- Build GUI using Tkinter or PyQt
- Data Visualizations with Matplotlib
- Project Deployment



Mini Project: Temperature Logger with GUI Dashboard