COURSE TABLE OF CONTENTS

Scientific Computing with SciPy

OEM: Open Source • Duration: 3 Days (24 hrs)

COURSE MODULES & TOPICS

Module 1: Introduction to SciPy and Its Ecosystem

- Overview of SciPy
- SciPy libraries and modules
- Installing and setting up SciPy
- Basic operations with SciPy
- Working with NumPy arrays

Module 2: Numerical Integration and Optimization

- Numerical integration techniques
- Optimization in SciPy
- Curve fitting and interpolation
- Solving differential equations
- Root finding algorithms

Module 3: Statistical Analysis and Signal Processing

- Statistical functions in SciPy
- Signal processing techniques
- Advanced mathematical functions
- Data visualisation with SciPy
- Case studies and real-world applications