# Proteus OIP Operation, Maintenance, and Installation

## COURSE TOPICS

### Overview of the Proteus UMX
- AIS (Auto Interference Sensibility)
- ACM (Adaptive Code Modulation)
- MIMO (multiple input, multiple output)
- ACS – Automatic Channel Selection
- DFS - Dynamic Frequency Selection

### Hardware Configurations
- Architecture
- RFU Antenna
- 1000 BaseT

### Other External Connections
- Power
- Cat 5 cable

### Provisioning
- Link Manager
- Network Management System (NMS)
- Simple Network Management Protocol (SNMPc)

### Troubleshooting and Repair
- Alarms
- Firmware Download Process
- Configuration Backup and Restore

### Grounding
- Site grounding
- Equipment grounding
- Ground termination
- Testing ground connections

### Commissioning
- Commissioning procedure
- Recommended commissioning test
- Hands On Practical Exercises
- Configuration Backup and Restore

### Hands-on troubleshooting and correction
- RF Analyzer
- Payload Configuration
- Software Updates

* Note – Course material subject to change.

## Overview:
The Proteus OIP Operation, Maintenance and Installation course is an instructor lead theory and hands on training class. Along with theory of operations the students will work on a Proteus radio link on equipment configuration and troubleshooting. This course is conducted by certified Microwave Network instructor with extensive practical field experience.

## Objective:
Upon completion of the course the student will understand the Proteus OIP operations and work with the Element Manager to configure, provision and troubleshoot the radio.

## Prerequisites:
Completion of Fundamental of Microwave Radio course or understanding of following:
- Basic microwave systems operations
- Basic RF knowledge: modulation, propagation, power and signal measurements
- Fundamentals of networking