Self-Organizing Network for 5G Training

The course "SON for 5G" provides a deep dive into Self-Organizing Network (SON) features within the 5G RAN, based on 3GPP standards. Designed for professionals looking to enhance their understanding of SON, the course covers foundational concepts, advanced optimization techniques, and innovative features like energy saving and self-healing. Participants will gain actionable insights into how SON facilitates automated network operations and optimization, reducing manual intervention while boosting network efficiency and reliability.

Target Audience:

Telecom professionals, network engineers, and 5G enthusiasts seeking an intermediate understanding of SON in 5G.

Learning Objectives:

- Understand the core principles and types of SON: centralized, distributed, and hybrid.
- Explore SON's role in NG-RAN establishment, configuration, and optimization.
- Learn how SON enhances performance through features like load balancing, interference management, and mobility robustness.
- Gain insights into energy-saving strategies and self-healing capabilities.

Course Modules:

Module 1: Introduction to SON for 5G

- What is SON?
- Centralized, Distributed, and Hybrid SON Architectures
- Human Intervention in SON

Module 2: SON in 5G Establishment and Configuration

- 5G Self-Configuration
- 5G ANR (Automatic Neighbour Relation)
- Dynamic Xn Configuration

Module 3: 5G SON Optimization Features

- Load Balancing Optimization
- Inter-Cell Interference Management
- RACH Optimization

Module 4: Centralized Capacity and Coverage Optimization

- Trace and MDT (Minimization of Drive Tests)
- MRO (Mobility Robustness Optimization)

Module 5: Energy Saving in SON

- Techniques for Reducing Energy Consumption
- Use Cases and Best Practices

Module 6: Self-Healing Capabilities in 5G

- Automated Fault Detection
- Network Recovery Mechanisms