Deep dive into 5G Optimization & Troubleshooting solutions

5G KPI, 5G Optimization and 5G Troubleshooting

5GWorldPro has become the leader on providing 5G Trainings to particulars, service providers, operators, enterprises around the world and they have been recommended by many Professionals

In this course, we will discuss about 5G key network performance and counters, 5G Practical call flow, practical 5G features, real world 5G optimization issues and solutions and we will finish by investigating and troubleshooting 5G Low throughput

In order for the attendant to fully understand the content of this topic and to gain a further insight into the 5G RAN design, it is also recommended to have prior attended following courses with 5GWorldPro

- **5G New Radio Advanced Training**
- **5G New Radio RF Planning Training**

Who would benefit:

This course is designed for RF engineers, optimization engineers, technicians and technical managers needing a solid foundation for understanding the principles of RF optimization and require applicable skills in 5G optimization and 5G troubleshooting

Training description:

1- Key 5G NR technical Technologies and comparison 5G FDD & 5G TDD

1. 5G 3GPP update and 5G bands
2. 4G OFDM Vs 5G F-OFDM
3. Massive Mimo with SU/MU Mimo
4. 5G Beamforming procedures (Correlation, Weighting, implementation …)
5. Comparison between 5G FDD and 5G TDD

2- 5G KPIs/Counters and 5G mobility Management

1. 5G KPI definition in SA and NSA
2. 5G Counters with call flow procedures
3. 5G NSA Mobility Management
4. 5G NSA KPI Acceptance

3- 5G Practical Call flows

1. 5G Attach procedure call flow with traces
2. Different use cases of 4G/5G Attach failed and call flow
3. 5G Mobility call flow in different use cases

4- 5G Practical Features applications in real networks

1. Split Bearer in NSA Mode
2. 5G DSS with practical deployments and constraints
3. 5G Logo Icon / 5G upper layer indication
4. Feature optimization for high speed mobility in 5G (with DMRS, RACH, Hyper cell …)
5. SRB 3 activation in 5G

5- Real-World 5G Optimization Issues and Solutions

1. 5G Coverage comparison and Optimization in NSA mode

2. Anchor and Mobility optimisation cases

3. SCG failure & NR Radio Timers optimization

4. 5G Access common issues

5. 5G Summary analysis process

6- 5G Low Throughput Troubleshooting in SA/NSA

1. 5G NR Throughput Calculation

2. Factors & Prequisites to reach max 5G Throughput

3. Number of Grant and RB Troubleshooting

4. Low MCS Troubleshooting

5. High IBLER Troubleshooting

6. Low rank Troubleshooting