



UMTS RRM State

1 Hr. 11 Min.



LEARNING OBJECTIVE:

Upon completing the course, the participant will be able to:

- Understand RRM procedure.
- Understand the basic RRM functionalities.
- Understand cell selection and reselection process
- Discuss the RRC states, Location update procedure.
- Explain how paging is done.

COURSE OBJECTIVE:

- This course provides a learning path to understand the Radio Resource Management (RRM) functions in UMTS. Our main focus will be to understand the procedures of cell Search which involves comprehending what actually happens when a User Equipment (UE) is switched on. We will also see in depth the cell selection and Reselection procedure with reference to the change in RRC states, Location update process & the paging concept..

WHO SHOULD ATTEND:

This course is designed to provide a general overview for strategic or technical managers, consultants, communications professionals, network professionals and others who plan on using, evaluating or working with GSM/WCDMA/LTE wireless networks.

TARGET AUDIENCE:

- RF Engineers, UMTS Planners and Optimizers, Drive Test Engineers.

INSTRUCTIONAL METHODS:

Lectures in Classroom, Virtual Classroom trainings, discussion, Questions & Answers. All participants will also receive comprehensive course materials.

COURSE OUTLINE:

1. Overview

- 1.1 Course overview**
- 1.2 Overview & Objectives.**
- 1.3 Cell procedure**
- 1.4 PLMN Search**

- 1.5 PLMN Selection**
- 1.6 Cell Selection & Procedure**
- 1.7 Cell Selectin Procedure**
- 1.8 Cell Selection Criteria S**
- 1.9 Cell Selection when leaving the RRC Connected State**





UMTS RRM State

1 Hr. 11 Min.

2. Basics

- 2.1 Location Registration
- 2.2 Normal Location Update procedure (LUP)
- 2.3 Periodic Registration
- 2.4 IMSI Attach/ Detach
- 2.5 RRC Model Diagram
- 2.6 Cell Reselection in the RRC idle and RRC Connected mode
- 2.7 Hierarchical Cell Structure (HCS)
- 2.8 Cell Reselection without HCS
- 2.9 Cell reselection : Measurements rules

3. Intermediate Level

- 3.1 Cell Reselection without HCS – R- Criterion
- 3.2 Cell Reselection with HCS
- 3.4 Cell Reselection with HCS : Measurement Rules
- 3.5 Measurement Rules : HCS & Fast Moving UE
- 3.6 Cell Reselection – H- Criterion (Slow Moving UE)
- 3.7 Paging
- 3.8 paging in idle mode
- 3.9 Paging in idle mode and URA PCH

4. Advanced Level

- 4.1 Paging Occasions
- 4.2 Dedicated Paging
- 4.3 System Information
- 4.4 System Information Block
- 4.5 System Information Block 1 (SIB 1)

- 4.6 System Information Block 6
- 4.7 Cell Update
- 4.8 URA update

Evaluation and feedback of the participants

Maximum number of participants: 15

Duration: 1 Hr. 11 Min.

