

5G Advanced: UE Power Saving

2 Hours

DURATION

1

MODULES

9

TOPICS

COURSE OVERVIEW

This course dives into the UE power-saving features defined in 3GPP Releases 17, 18, and 19. Learn how these enhancements significantly reduce power consumption across 5G systems critical for extending battery life, reducing energy use, and enabling new device categories. Explore advanced power-saving features like eDRX, paging optimizations, DRX (eDRX), Paging Early Indication (PEI), Measurement Relaxation, and Small Data Transmission (SDT).

PREREQUISITES

- This course is part of our corporate program and requires an NDA for access. Because of this, we can only offer this course to individuals through their companies.
- This course is geared toward network engineers, RF engineers, and system engineers.
- Those who enroll in this course should have completed or are familiar with the content in our 5G NR Technical Training course.

LEARNING OBJECTIVES

What You Will Learn

- Explore the UE power saving features in 3GPP Release 17, 18, and 19 and learn how they optimize battery performance.
- Familiarize yourself with the mechanics of features like PEI, SDT, and LP-WUR in reducing power consumption during various UE states.

1 Module, 9 Topics

01

TOPICS

R17 UE power saving features:

- eDRX in Idle Mode: Cycles, Paging Time Window (PTW), and Hyper System Frame Number (H-SFN)
- Paging Early Indication (PEI) and Paging Subgroups to reduce unnecessary wake-ups
- RRM Measurement Relaxation for stationary and low-mobility UEs
- RLM/BFD Relaxations and network configuration
- PDCCH Skipping & SSSG Switching
- Small Data Transmission (SDT) Overview: RACH-based and Configured Grant (CG)-based options

R18 UE power saving features:

- Mobile Terminated SDT (MT-SDT) using RACH and CG resources

R19 UE power saving features:

- Low Power Wake-up Signal (WUS) and Low-Power Wake-up Receiver (LP-WUR) architecture
- Use cases for low-power WUS in power-sensitive, small form-factor devices

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Hands-on exercises throughout the course
- Delivery by certified instructors and subject matter experts
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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