

**EQACC SOLAR**

# **Tashkent Communication 5G Base Station AI Energy Saving Project**



## Overview

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What is the ITU-T Technical Report on 5G base station?

This document contains Version 1.0 of the ITU-T Technical Report on “Smart Energy Saving of 5G Base Station: Based on AI and other emerging technologies to forecast and optimize the management of 5G wireless network energy consumption” approved at the ITU-T Study Group 5 meeting held online, 20th May, 2021. 3.1.

What is the energy-saving technology of base stations?

This technical report focuses on energy-saving technology of base stations. Some energy saving technologies since 4G era will be explained in details, while artificial intelligence and big data technology will be introduced in response to the requirement of an intelligent and self-adaptive energy saving solution.

Can energy-saving technology be used in 5G wireless networks?

The research and application of energy-saving technology for 5G wireless networks are significant for the emission-reduction work of Communication Operators. The traditional power-saving effect evaluation scheme of Active Antenna Unit (AAU) is complicated, leading to errors in the final evaluation results possibly.

How artificial intelligence (AI) technology will improve 5G network operation?

Artificial intelligence (AI) technology has natural advantages in solving high computational data analysis, cross domain feature mining, dynamic strategy generation and so on, which will give new mode and ability of network operation and maintenance in 5G.

## Tashkent Communication 5G Base Station AI Energy Saving Project

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### AI-based energy consumption modeling of 5G base stations: an energy

The energy consumption of 5G networks is one of the pressing concerns in green communications. Recent research is focused towards energy saving techniques of base ...

### Evaluation of the power-saving effect of 5G base station based on AI

The research and application of energy-saving technology for 5G wireless networks are significant for the emission-reduction work of Communication Operators. The ...



### GitHub

This project addresses the critical challenge of energy consumption in 5G networks, specifically in Base Stations (BSs), which account for over 70% of the total energy usage. ...

### Application of AI technology 5G

## base station

The intelligent energy-saving of base station using AI technology should be divided into different types of problems, study the characteristics of telecommunication analysis and ...



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The energy consumption of 5G networks is one of the pressing concerns in green communications. Recent research is focused towards energy saving techniques of base ...

### Final draft of deliverable D.WG3-02-Smart Energy Saving ...

Change Log This document contains Version 1.0 of the ITU-T Technical Report on "Smart Energy Saving of 5G Base Station: Based on AI and other emerging technologies to ...



### ITU-T L Supplement 43

This Supplement examines energy-saving technology for fifth generation (5G) base stations (BSs). Some energy-saving technologies developed since the

fourth generation (4G) ...



## Smart Energy-Saving Solutions Based on Artificial ...

Execution Strategy: The network management system receives the integrated energy-saving strategy and executes energy-saving functions on 5G base stations, such as ...

**LFP12V100**



## Optimal energy-saving operation strategy of 5G base station ...

To further explore the energy-saving potential of 5 G base stations, this paper proposes an energy-saving operation model for 5 G base stations that incorporates ...

## Intelligent Energy Saving Solution of 5G Base Station Based ...

This paper introduces the basic energy-saving technology of 5G base station, and puts forward the intelligent energy-saving solutions based on artificial

intelligence (AI) and big ...



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