

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	03 November 2023
Team ID	PNT2023TMID592203
Project Name	Project - AI-Driven Optimization Of 5G Resource Allocation For Network Efficiency
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR.No	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Tak)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	AI-Driven Optimization of 5G Resource	Resource Allocation Algorithm Design

FR-4	Allocation for Network Efficiency	Integration with 5G Network Infrastructure Optimization Model Development
FR-5	Data Collection and Analysis	Collection of 5G Network Data Data Analysis for Optimization
FR-6	Real-Time Resource Allocation	Real-Time Monitoring of Resource Usage Dynamic Resource Allocation
FR-7	Performance Metrics and Reporting	Define Key Performance Metrics Generate Optimization Reports

#### Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR.No	Non-Functional Requirement	Description
NFR-1	Usability	User-friendly interface for seamless navigation and efficient resource allocation management.

NFR-2	<b>Security</b>	Prioritizes robust security measures to protect network integrity and user data.
NFR-3	<b>Reliability</b>	Ensures uninterrupted and consistent network operation for ultimate user reliability.
NFR-4	<b>Performance</b>	Optimizes network performance, minimizes latency, and enhances user experiences efficiently.
NFR-5	<b>Availability</b>	The solution is available for deployment and immediate implementation.
NFR-6	<b>Scalability</b>	Scalable 5G solution with dynamic AI resource allocation for performance.