

## **Communication Protocols and AI Integration for Real-Time Monitoring and Predictive Healthcare Systems in Smart Cities**

<b>Chapter</b>	<b>Title</b>	<b>Page No.</b>
1	<b>Architectural Frameworks for AI-Powered Healthcare Systems with Multi-Layered Communication Protocols in Smart Cities</b>	12
2	<b>Real-Time Health Data Acquisition Using IoT-Enabled Wireless Sensor Networks in Urban Healthcare Ecosystems</b>	40
3	<b>Advanced AI Models for Predictive Healthcare Analytics Leveraging Real-Time Big Data Processing</b>	66
4	<b>Multi-Protocol Communication Layers for Seamless Integration of Medical Devices in Smart City Infrastructures</b>	92
5	<b>5G Communication Standards and Their Role in Enabling Ultra-Reliable Low-Latency Healthcare Applications</b>	120
6	<b>Integration of Federated Learning in Decentralized Healthcare Networks for Urban Health Monitoring</b>	146
7	<b>Cloud and Edge Computing for High-Speed Data Analysis and Response in Predictive Healthcare Systems</b>	172
8	<b>Enhanced Transport Protocols for High-Bandwidth Data Transmission in Smart City Healthcare Networks</b>	201
9	<b>AI-Driven Adaptive Communication Algorithms for Continuous Monitoring of Chronic Conditions in Urban Areas</b>	228
10	<b>Design of Low-Power, Energy-Efficient Communication Modules for Wearable Health Monitoring Devices</b>	254
11	<b>Blockchain Integration in AI-Enabled Communication Protocols to Enhance Trust and Security in Health Data</b>	279
12	<b>Optimization of Multi-Hop Communication in IoT Systems for Urban Health Data Aggregation and Processing</b>	305
13	<b>Secure Machine-to-Machine Communication Techniques for Scalable Healthcare IoT Networks</b>	330

14	<b>Deep Learning Applications in Anomaly Detection and Predictive Maintenance of Urban Health Infrastructure</b>	356
15	<b>Standardization and Interoperability Challenges in Multi-Vendor AI-Driven Communication Systems for Healthcare</b>	381
16	<b>Role of Quantum Communication Protocols in Enabling High-Security Predictive Healthcare Systems</b>	406
17	<b>Simulation and Performance Analysis of Smart City Healthcare Networks with AI-Augmented Communication Frameworks</b>	433