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(57) Abstract :
The invention relates to a quantum computing algorithm for predicting complex network traffic patterns. The system integrates a Data Input Module (101), Quantum Encoding Unit (102), Quantum Prediction Engine (103), Classical Processing Unit (104), and Forecast Output Layer (105). By leveraging quantum parallelism and hybrid computation, the invention provides real-time, accurate predictions of traffic surges and anomalies. Experimental validation demonstrates superior accuracy, reduced latency, and robustness in noisy environments, ensuring scalability for 5G/6G, IoT, and large-scale communication networks.

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