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(57) Abstract :
 A congestion-resistant mesh networking architecture (100) for disaster recovery is disclosed. The system comprises decentralized nodes (102), forming a mesh network (104) using adaptive routing (108), congestion prediction (112), and priority-based traffic classification (110). It ensures reliable communication by rerouting data through healthy paths and reducing energy drain via health monitoring modules (114). The invention is suitable for real-time coordination in disrupted environments and demonstrates enhanced reliability, efficiency, and resilience under stress, supporting scalable and autonomous deployment.

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