



**RESEARCH ARTICLE**

# **CCLAEEO: CLUSTERING BASED CROSS-LAYER AIDED ENERGY-EFFICIENT OPPORTUNISTIC ROUTING SCHEME IN MOBILE AD HOC NETWORKS**

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*Abstract— The major features of CCLAEEO Routing scheme are centralized recovery process, deterministic (as opposed to probabilistic) peer-to-peer recovery, and ability to trade off recovery with latency. The link excellence similarity of wireless channels has been a difficult issue in data connections until current plain investigation in utilizes this characteristic. The matching broadcast communication may be perceived radically in a different way, and generally by you, by receivers at different geographic locations. Furthermore, even the same stationary receiver may experience drastic link quality fluctuation over time. A key component of CORA (Conditional Orientation Reflex Audiometry) is the Cached Packet Distance Vector (CPDV) protocol for local peer-to-peer loss recovery. CPDV finds and retrieves the nearest copy of the missing packet while providing other useful NACK aggregation features. We use simulation experiments to demonstrate the effectiveness of CORA and explore the tradeoffs of CPDV localized recovery benefits versus memory and processor overhead. In a typical simulation experiment with mobile nodes CORA yields up to 99% release ratio as compared to 95% delivery ratio by idle talk. This expansion is achieved with small overhead.*

*Key Terms: - Cooperative communication; Forwarder list update; Local retransmission; Mobile ad hoc networks; Opportunistic routing; Opportunistic forwarding; Proactive source routing*

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