



EVALUATION OF HYBRID TRUST MODELS USING ANT COLONY OPTIMIZATION IN WIRELESS SENSOR NETWORKS

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Abstract- Wireless sensor networks (WSNs) are prone to various kinds of threats and are subjected to several constraints like energy, communication overhead and lifetime. Application of bio-inspired algorithms based trust models has shown significant improvement in the security mechanism of the wireless sensor networks. This paper presents a brief survey on application of Ant Colony Optimization (ACO) and significance of trust models in WSNs. ACO application in routing, increase in lifetime, energy efficiency, intrusion detection and security has been presented. The performance of three hybrid trust models is evaluated based on the path length, trust calculation and energy consumption using ACO.

Index terms: Ant Colony Optimization, Bad mouthing, Entropy, Fuzzy Trust, Sybil Attack.