**ETSJ013 - AN ACKNOWLEDGEMENT BASED APPROACH FOR DETECTION OF ROUTING MISBEHAVIOUR IN MANET**

**Abstract** — Although anonymizing Peer-to-Peer (P2P) systems often incurs extra traffic costs, many systems try to mask the identities of their users for privacy considerations. Existing anonymity approaches are mainly path-based: peers have to pre-construct an anonymous path before transmission. The overhead of maintaining and updating such paths is significantly high. We propose Rumor Riding (RR), a lightweight and non-path-based mutual anonymity protocol for decentralized P2P systems. Employing a random walk mechanism, RR takes advantage of lower overhead by mainly using the symmetric cryptographic algorithm. We conduct comprehensive trace-driven simulations to evaluate the effectiveness and efficiency of this design, and compare it with previous approaches. We also introduce some early experiences on RR implementations.