

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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2012–2013

A Dissertation Report on

**“REQUISITE TRUST-BASED SECURE ROUTING PROTOCOL FOR
MANETS”**

Submitted in partial fulfillment of the requirements for the award of degree

**BACHELOR OF ENGINEERING
IN
INFORMATION SCIENCE AND ENGINEERING**

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ABSTRACT

A mobile ad-hoc network (MANET) is an infrastructure less network of mobile devices connected by wireless links. To secure a MANET in colluding nodes environment, the proposed work aims to detect and defend colluding nodes that causes internal attacks. In order to achieve this, the work focuses on the novel algorithm of trust computation and route detection that detects colluding nodes, without message and route redundancy during route discovery by using Requisite Trust based Secure Routing Protocol (RTSR). The trust will be calculated in local forwarding nodes, which are used to discover the route. The trust values from one hop neighbors are used to calculate the single trust value for each node using the constant normalization concept. Route discovery and trust information will be stored in fixed cluster head (CH). Piggybacking bit will reduce the broadcast storm problem.