Department of Computer Science and Engineering

Certificate

SAPTHAGIRI
College of Engineering

Certified that the project work entitled **"Mitigation of Sybil Attack in VANET usir Authentication algorithm"** carried out by **NISHANT VIKARAM (1SG11CS051), SANDEEP SING YADAV (1SG11CS068), SUBHASH VIPLAV (1SG11CS084), VISHAL BINIT (1SG11CS09** bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during t academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment ha been incorporated in the report deposited in the department library. The project report has been approved t satisfies the academic requirements in respect of Project work prescribed for the said degree.

22/5/2015

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25/5/15

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ABSTRACT

The main purpose of this project is to conduct an informative study of the current trends of Vehicular Ad Hoc Networks (VANETS) as they relate to Intelligent Transport Systems (ITS). A secure VANET system must protect the system against unauthorized message injection, message alteration eavesdropping while exchanging information. Key features that a secure VANET must possess include Authentication, Confidentiality, Data Integrity, Availability, Access Control and Non-Repudiation. Authentication is the initial step for ensuring a vehicle's genuine identity to grant permission for accessing VANET. Here this authentication will be provided based on the identity of the vehicle which will be unique for each and every vehicle. Threats regarding authentication in VANET includes SYBIL attack. In this Sybil attack the intruder tries to gain access over the network or the vehicles present in the network and infects the network by injecting false messages and by conveying wrong information. Here we propose an Authentication Algorithm to mitigate SYBIL attack in VANET system. The authentication algorithm used is SHA-2.This algorithm is very much secure as the trace back is not allowed in this algorithm so the actual identity can't be revealed. Even if any node in the network gets infected then it will be discarded from the network and thereafter will not be allowed to take part in any sort of communication. This algorithm will help us to achieve better security performance as compared to previous proposed algorithms.