

Enhancement of Game Theoretic Approach Using Nash Equilibrium with Markov Chains for VANET Security

M. Prabakaran^(1), A. R. Deepti⁽²⁾, G. Mahadevan⁽³⁾, R. M. S. Parvathy⁽⁴⁾*

⁽¹⁾ Anna University, Chennai, India

⁽²⁾ Acharya Institute of Technology, Bangalore, India

⁽³⁾ Stanford University, U.S.

⁽⁴⁾ Tamil university, Thanjavur, Tamil nadu, India

Abstract

Vehicular ad-hoc networks (VANETs) are a special type of Mobile ad-hoc networks, which provides safety and commercial applications to the vehicles. Typically, this technology uses every moving car as nodes to form a network. To make a travel more convenient for the user, the VANET has provided a good service and security for them. Recently, game theoretic models are used to address network security issues. The VANET faces the greatest security threats in the game theoretic approach. In this paper a Game theoretic potential for VANET security is applied. This new technique is termed as NE (Nash Equilibrium) with Markov chains based on the game model, is used for VANET to improve the performance and security better.

Keywords

Nash Equilibrium

Markov Chain

VANET