Department of Computer Science and Engineering

Report on

ARA – The Ant-Colony Based Routing Algorithm for MANETs

Mesut G¨unes, Udo Sorges, Imed Bouazizi

Report Writers:
Shantanu Sarkar
(0416052041)
Mahmud Ahmed
(0416052027)
Md. Mostafizur Rahman
(0416052032)

Supervisor:
Dr. Ashikur Rahman

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Abstract

1 Introduction

Introduction of the report goes here.

2 Context and Problem Statement

3 Idea

4 Evaluation Metrics

According to the Authors, the main feature of ARA is its low routing overhead and easy maintainability of routes between nodes in the topology. So, The evaluation metrics considered to measure the performance of ARA are:

- Delivery rate
- Routing overhead in terms of bits
- Routing overhead in terms of packets

5 Evaluation Process

The performance of ARA was evaluated using simulation in terms of evaluation metrics mentioned earlier. The simulation was implemented in ns-2. Some important parameters of the simulation environment are:

- Simulation area 1500m×300m
- Maximum velocity of nodes 10 m/s
- Simulation time 900 seconds
- 10 Constant bit rate(CBR) connections
- 7 different pause times[1] 0,30, 60, 120, 300, 600 and 900 seconds

[1]pause time indicates the mobility of the nodes