

CONTENTS

APPROVAL PAGE	
SELF DECLARATION AGAINST PLAGIARISM	
ABSTRACT	iv
DEDICATION	v
ACKNOWLEDGMENTS	vi
CONTENTS	viii
LIST OF FIGURES	xi
LIST OF TABLES	xii
I INTRODUCTION	1
1.1 Background	1
1.2 Problem Statement	3
1.3 Objectives	4
1.4 Scope of Work	5
1.5 Expected Results	5
1.6 Research Methodology	6
II BASIC CONCEPT	8
2.1 Vehicular Ad Hoc Networks (VANET)	8
2.1.1 VANET characteristics	9
2.1.2 VANET Architecture	10

2.2	Comparison VANETs on IP and NDN	11
2.2.1	VANET on NDN	11
2.2.2	VANET on IP	13
2.3	Named Data Network (NDN)	14
2.3.1	NDN Concept	15
2.4	Forwarding Process on NDN	16
2.4.1	Interest Packages on Forwarding	16
2.4.2	Data Packages on Forwarding	18
2.5	Comparison Forwarding Process on NDN and IP	19
2.6	Comparison Signaling on IP and NDN	19
2.7	On Broadcast based Multicast-Vanet	22
2.8	Hop-by-Hop Rate Control	22
2.9	On Broadcast based Self-learning	23
2.10	ndn Simulator	24
2.11	ns-3	24
2.12	ndn4ivc	25
2.13	Parameter Test	26
2.13.1	Round-Trip Time	26
2.13.2	Throughput	27
2.13.3	Cache Hit Ratio	27

III SYSTEM MODEL AND THE PROPOSED METHOD 29

3.1	System Design of after receive interest self-learning forwarding strategy default	32
3.2	System Design of after receive interest self-learning forwarding strategy with elimination NACK mechanism	33
3.3	System Design of after receive interest self-learning forwarding strategy with limitation NACK mechanism	35
3.4	Simulation scenarios and parameters	37

	x
3.5 Data Collection Scenario	40
3.6 Scenario analysis	41
IV RESULT AND ANALYSIS	43
4.1 SCENARIO 1	43
4.2 SCENARIO 2	48
V CONCLUSION	53
5.1 Conclusion	53
5.2 Future Work	54
REFERENCES	55