

# CONTENTS

## 1 Introduction

1.1 Background.....	2
1.2 Problem description.....	5
1.3 Related work.....	6
1.4 Disposition.....	9

## 2 General Concepts

2.1 Wireless ad-hoc networks.....	11
2.1.1 General.....	11
2.1.2 Usage.....	13
2.1.3 Characteristics.....	13
2.2 Routing.....	15
2.2.1 Conventional protocols.....	15
2.2.2 Link State.....	16
2.2.3 Distance Vector.....	16
2.2.4 Source Routing.....	17
2.2.5 Flooding.....	17
2.2.6 Classification.....	17

## 3 IVC Algorithms

3.1 ADAPTIVE RATE CONTROL (ARC).....	20
3.2 Priority Based Inter-Vehicle Communication in Vehicular Ad-Hoc Networks using IEEE 802.11e.....	22
3.3 Vehicular Information BROadcasting Relay (VIBROR).....	24
3.3.1 Overview of VIBROR protocol.....	24
3.3.2. General Scheme Flow.....	25
3.3.3. Receiving algorithm.....	26
3.3.4. Transmission Algorithm.....	27
3.4 Dynamic Source Routing - DSR.....	28
3.4.1 Description.....	28
3.4.2 Properties.....	29
3.5 Cluster Based Routing Protocol - CBRP.....	31

3.5.1 Description.....	31
3.5.2 Properties.....	33
3.6 An Efficient Fully Ad-Hoc Intersection handling with the AMB protocol.....	34
<b>4 IVC using Cache Management Architecture: Proposed</b>	
4.1 System Model.....	42
4.1.1 Network Model.....	42
4.1.2 Organizations of Databases.....	43
4.1.3 Location Update Procedure.....	44
4.2 A DISTRIBUTED CACHE MANAGEMENT ARCHITECTURE (DCMA).....	45
4.2.1 Cache Placement Algorithm.....	45
4.2.2 Cache Discovery.....	46
<b>5 Simulation Environment &amp; Study</b>	
5.1 The C Language.....	49
5.1.1 Introduction.....	49
5.1.2 Arrays.....	50
5.1.3 Pointers.....	51
5.1.4 Recursion.....	53
5.2 Data-Structure .....	57
5.3 Linked Lists.....	61
<b>6. Implementation Study</b>	
6.1 Structure.....	66
6.2 Linked lists.....	67
6.3 Organization of database.....	69
6.4 Functions.....	70
<b>7 Conclusion</b>	
7.1 Conclusion.....	84
7.2 Further Studies.....	84
<b>8 References.....</b>	<b>85</b>