

<b>Contents</b>	<b>Page No.</b>
<b>Chapter 1: Introduction</b>	<b>1</b>
1.1 Problem Definition	1
<b>Chapter 2: Background study</b>	<b>2</b>
2.1 Android	2
2.1.1 Android Architecture	2
2.1.2 Android Application Components	4
2.1.3 Application Life-cycles	5
2.1.4 Android Software Development Kit and Environment	8
2.1.5 Android User Interface and Touch Screen	9
2.2 UDP	10
2.3 Java	11
2.4 Eclipse	12
2.4.1 Eclipse Architecture	13
2.5 Android Virtual Device	14
2.6 Wi-Fi Direct	15
2.6.1 Wi-Fi Direct	15
2.6.2 Wi-Fi Direct Diagram	16
2.6.3 Wi-Fi Direct API Overview	17
2.7 Voice Encoding/Decoding	18
2.7.1 Audio Recorder	18
2.7.2 Audio Player	18
2.8 Project Components	19
2.8.1 Android Project Component	19
2.8.2 Java Project Components	19
<b>Chapter 3: Application prerequisite for development</b>	<b>20</b>
3.1 Application Requirements and Descriptions	20
3.1.1 Android Application Background and Specifications	20
3.1.2 Architectural Design	20

## **Contents**

**Page No.**

<b>Chapter 4: Proposed Framework</b>	<b>21</b>
4.1 Proposed Framework	21
4.2 Proposed feature for Audio Recording Services	21
4.3 Proposed features for Audio Playback Services	22
4.4 Signalling Diagram	24
4.5 Control Flow Diagram	25
4.5.1 Connecting module design using Wi-Fi Direct Interface	25
4.5.2 Call Initiation module	26
4.5.3 Call Receiving module	27
<b>Chapter 5: Implementation</b>	<b>28</b>
5.1 Detail about Classes/Methods used in during implementation	28
5.2 Detail about Classes/Methods designed and developed	28
<b>Chapter 6: Testing and Verification</b>	<b>31</b>
6.1 Testing and Verification	31
6.2 Screenshots	32
<b>Chapter 7: Conclusion and Future Work</b>	<b>43</b>
7.1 Conclusion	43
7.2 Future Work	43
<b>Chapter 8: References</b>	<b>44</b>