## Contents

| 1 | INI |                              | <b>2</b> |
|---|-----|------------------------------|----------|
|   | 1.1 | Overview                     | 2        |
|   | 1.2 | Motivation                   | 2        |
|   | 1.3 | Problem Formulation          | 3        |
| 2 | BA  | CKGROUND                     | 4        |
|   |     | 2.0.1 Data Privacy           | 4        |
|   |     | 2.0.2 Context Privacy        | 4        |
|   |     | 2.0.3 Location Privacy       | 5        |
|   |     |                              | 5        |
|   |     | 2.0.5 Graph Theory           | 5        |
| 3 | RE  | LATED WORK                   | 7        |
| 4 | NE  | TWORK MODEL AND THREAT MODEL | 8        |
|   | 4.1 | Sensor Network Model         | 8        |
|   | 4.2 | Threat Model                 |          |
| • | 4.3 |                              | 0.       |
|   |     | ·                            | .0       |
| 5 | RES | SULTS AND DISCUSSIONS 1      | 2        |
|   | 5.1 | Results and Discussion       | .2       |
|   | 5.2 | Complexity Analysis          |          |
|   | 5.3 |                              | 2        |