|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| lifetime | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | 4//4(1.2/1.2) | 57638 | 54480 | 54066 | 53389 | 50679 | 50086 | 49861 |
|  | 3//4(1.2/1.6) | 60282 | 59736 | 59045 | 58791 | 59044 | 57151 | 56644 |
|  | 3//3(1.2/1.7) | 64394 | 62623 | 60889 | 59763 | 57328 | 57433 | 56024 |
|  | 2//4(1.3/1.6) | 62311 | 60207 | 59781 | 59054 | 56811 | 55187 | 52523 |
|  | 2//3(1.3/1.7) | 61825 | 61654 | 59292 | 60326 | 57411 | 57867 | 54501 |
|  | 2//2(1.7/1.7) | 69595 | 66656 | 65558 | 63021 | 62053 | 60741 | 56891 |

**5.6.1 Special場景**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| lifetime | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | 1//2(1.7-1.7) | 35033 | 32061 | 30911 | 28275 | 25771 | 26396 | 24938 |
|  | 1//3(1.2-1.7) | 34171 | 32095 | 32201 | 28221 | 25106 | 25891 | 25989 |
|  | 1//4(1.2-1.6) | 36461 | 34336 | 32675 | 29626 | 29491 | 27216 | 26851 |
|  | 2//3(1.2-1.7) | 48605 | 45103 | 39987 | 38561 | 36037 | 32415 | 31446 |
|  | 2//4(1.2-1.6) | 43413 | 41881 | 38923 | 35748 | 33171 | 29922 | 26536 |
|  | 2//2(1.7-1.7) | 40337 | 36241 | 33198 | 33065 | 27639 | 26672 | 23691 |

**5.6.2 Special2場景**

**5.5 Normal場景**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CH數 | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 600 | E-DSR | 304 | 416 | 509 | 580 | 651 | 701 | 744 |
|  | NRCA | 20 | 20 | 18 | 19 | 20 | 22 | 23 |
|  | Optimal LEACH | 319 | 399 | 480 | 554 | 632 | 708 | 794 |
|  | my | 341 | 425 | 510 | 592 | 670 | 748 | 835 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CH數 | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | E-DSR | 297 | 393 | 490 | 564 | 662 | 732 | 807 |
|  | NRCA | 19 | 18 | 20 | 20 | 21 | 20 | 21 |
|  | Optimal LEACH | 313 | 395 | 481 | 555 | 634 | 717 | 793 |
|  | my | 341 | 421 | 504 | 583 | 670 | 753 | 826 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CH數 | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 600 | E-DSR | 337 | 401 | 460 | 496 | 544 | 407 | 272 |
|  | NRCA | 20 | 18 | 19 | 17 | 21 | 21 | 20 |
|  | Optimal LEACH | 311 | 399 | 474 | 559 | 630 | 710 | 797 |
|  | my | 370 | 465 | 549 | 639 | 733 | 801 | 897 |

**5.5 Special場景、Special2場景**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal | my | 59811 | 56487 | 52229 | 48961 | 45724 | 41626 | 37001 |
|  | AODV | 6673 | 5591.46 | 4596.63 | 4146.53 | 4057.13 | 3372.54 | 3256.85 |
|  | REBM | 49885 | 49225 | 47227 | 42769 | 40701 | 39991 | 39037 |

**5.1 Normal場景(平面)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal | my | 0.130955 | 0.131193 | 0.130849 | 0.131055 | 0.130806 | 0.130865 | 0.131231 |
|  | AODV | 0.299729 | 0.274907 | 0.270039 | 0.268483 | 0.266095 | 0.262236 | 0.261709 |
|  | REBM | 0.496266 | 0.531299 | 0.551583 | 0.577258 | 0.60297 | 0.645942 | 0.64688 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special | my | 69595 | 66656 | 65558 | 63021 | 62053 | 60741 | 56891 |
|  | AODV | 7103.63 | 6148.47 | 5327.17 | 4404.74 | 4280.09 | 3843.2 | 3548.26 |
|  | REBM | 57655 | 54715 | 54343 | 52939 | 50197 | 48511 | 48151 |

**5.2.1 Special場景(平面)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special | my | 0.128662 | 0.128345 | 0.128532 | 0.12915 | 0.13138 | 0.136523 | 0.142937 |
|  | AODV | 0.253588 | 0.249881 | 0.244133 | 0.240689 | 0.239225 | 0.237736 | 0.237745 |
|  | REBM | 0.52612 | 0.544533 | 0.566918 | 0.606926 | 0.629963 | 0.632597 | 0.657459 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 | my |  |  |  |  |  |  |  |
|  | AODV |  |  |  |  |  |  |  |
|  | REBM |  |  |  |  |  |  |  |

**5.3.1 Special2場景(平面)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 | my |  |  |  |  |  |  |  |
|  | AODV |  |  |  |  |  |  |  |
|  | REBM |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 600 | E-DSR | **51906** | **50161** | **46891** | **42891** | **37891** | **33190** | **32134** |
|  | NRCA | **16081** | **7651** | **2731** | **861** | **751** | **621** | **601** |
|  | Optimal LEACH | **4941** | **4269** | **3431** | **3061** | **2671** | **2061** | **1961** |
|  | my | **59811** | **56487** | **52229** | **48961** | **45724** | **41626** | **37001** |

**5.2.1 Normal場景(600)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 600 | E-DSR | 0.131609 | 0.131113 | 0.131273 | 0.131255 | 0.131246 | 0.131037 | 0.139279 |
|  | NRCA | 0.105656 | 0.105041 | 0.103753 | 0.102776 | 0.102285 | 0.103781 | 0.104178 |
|  | Optimal LEACH | 0.010039 | 0.009425 | 0.010057 | 0.010713 | 0.010122 | 0.009932 | 0.009925 |
|  | my | **0.13096** | **0.13119** | **0.13085** | **0.13106** | **0.13081** | **0.13087** | **0.13123** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | E-DSR | 58701 | 57196 | 54819 | 54200 | 53075 | 51138 | 46662 |
|  | NRCA | 17821 | 12431 | 8321 | 4451 | 1131 | 1411 | 931 |
|  | Optimal LEACH | 5141 | 5001 | 4581 | 3251 | 2881 | 2311 | 1871 |
|  | my | **69595** | **66656** | **65558** | **63021** | **62053** | **60741** | **56891** |

**5.2.2 Special場景**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | E-DSR | 0.12862 | 0.128665 | 0.130372 | 0.138328 | 0.148652 | 0.151859 | 0.156267 |
|  | NRCA | 0.104777 | 0.103796 | 0.103936 | 0.111436 | 0.123815 | 0.15978 | 0.18735 |
|  | Optimal LEACH | 0.010769 | 0.009782 | 0.009886 | 0.010085 | 0.010496 | 0.010014 | 0.01072 |
|  | my | **0.12866** | **0.12835** | **0.12853** | **0.12915** | **0.13138** | **0.13652** | **0.14294** |

**5.2.3 Special2場景**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 600 | E-DSR | 44949 | 36769 | 32172 | 29463 | 23971 | 15961 | 9361 |
|  | NRCA | 3901 | 811 | 731 | 551 | 511 | 511 | 501 |
|  | Optimal LEACH | 4121 | 4111 | 3541 | 2801 | 2581 | 2021 | 1821 |
|  | my | **48605** | **45103** | **39987** | **38561** | **36037** | **32415** | **31446** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 600 | E-DSR | 0.137954 | 0.137697 | 0.140003 | 0.1561 | 0.175857 | 0.172673 | 0.176368 |
|  | NRCA | 0.105288 | 0.105387 | 0.102245 | 0.100969 | 0.110317 | 0.174066 | 0.222228 |
|  | Optimal LEACH | 0.010974 | 0.009934 | 0.010458 | 0.01071 | 0.010381 | 0.010749 | 0.010318 |
|  | my | **0.13739** | **0.13697** | **0.13741** | **0.13756** | **0.13927** | **0.14202** | **0.14538** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 400 | E-DSR | 56766 | 51170 | 49056 | 46541 | 45867 | 38761 | 29191 |
|  | NRCA | 12647 | 9281 | 1131 | 851 | 771 | 701 | 661 |
|  | Optimal LEACH | 4671 | 4531 | 3111 | 3361 | 3381 | 2091 | 1341 |
|  | my | **60581** | **54731** | **53183** | **50161** | **48269** | **47383** | **45979** |

**5.3 記憶體400**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Normal 400 | E-DSR | 0.131539 | 0.130618 | 0.131016 | 0.145591 | 0.161869 | 0.162526 | 0.164078 |
|  | NRCA | 0.104574 | 0.104482 | 0.104246 | 0.110309 | 0.10477 | 0.151406 | 0.218842 |
|  | Optimal LEACH | 0.010493 | 0.0098918 | 0.0107186 | 0.0098795 | 0.0130395 | 0.0131774 | 0.0187263 |
|  | my | **0.13081** | **0.13076** | **0.1309** | **0.13211** | **0.13609** | **0.14073** | **0.15296** |

**5.3 記憶體600**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 600 | E-DSR | **54196** | **50161** | **46891** | **42891** | **37891** | **33190** | **29481** |
|  | NRCA | 16081 | 7651 | 2731 | 861 | 751 | 621 | 601 |
|  | Optimal LEACH | 4941 | 4269 | 3431 | 3061 | 2671 | 2061 | 1961 |
|  | my | **59811** | **56487** | **52229** | **48961** | **45724** | **41626** | **37001** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 600 | E-DSR | **0.13118** | **0.13111** | **0.13127** | **0.13126** | **0.13125** | **0.13104** | **0.13868** |
|  | NRCA | 0.105656 | 0.105041 | 0.103753 | 0.102776 | 0.102285 | 0.103781 | 0.104178 |
|  | Optimal LEACH | 0.010039 | 0.009425 | 0.010057 | 0.010713 | 0.010122 | 0.009932 | 0.009925 |
|  | my | **0.13096** | **0.13119** | **0.13085** | **0.13106** | **0.13081** | **0.13087** | **0.13123** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Normal 800 | E-DSR | **52888** | **50018** | **46185** | **42841** | **37273** | **31774** | **27229** |
|  | NRCA | 15921 | 801 | 631 | 841 | 761 | 681 | 601 |
|  | Optimal LEACH | 5171 | 5081 | 3751 | 2681 | 2221 | 1881 | 1161 |
|  | my | **56237** | **53610** | **51385** | **49746** | **47576** | **42713** | **38363** |

**5.3 記憶體800**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 800 | E-DSR | **0.1316** | **0.13106** | **0.13123** | **0.13157** | **0.13108** | **0.13099** | **0.13129** |
|  | NRCA | 0.106964 | 0.104429 | 0.105349 | 0.10549 | 0.104875 | 0.102137 | 0.100531 |
|  | Optimal LEACH | 0.010482 | 0.010956 | 0.010498 | 0.010232 | 0.010152 | 0.009821 | 0.010208 |
|  | my | **0.13008** | **0.1307** | **0.13093** | **0.13097** | **0.13116** | **0.1315** | **0.1313** |

**5.4資料壓縮**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| 0.5 | E-DSR | 54196 | 50161 | 46891 | 42891 | 37891 | 33190 | 29481 |
|  | NRCA | 16081 | 7651 | 2731 | 861 | 751 | 621 | 601 |
|  | Optimal LEACH | 4941 | 4269 | 3431 | 3061 | 2671 | 2061 | 1961 |
|  | my | 59811 | 56487 | 52229 | 48961 | 45724 | 41626 | 37001 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| 0.75 | E-DSR | 31869 | 31201 | 26403 | 19414 | 16491 | 14021 | 13718 |
|  | NRCA | 2071 | 821 | 681 | 551 | 511 | 481 | 411 |
|  | Optimal LEACH | 4061 | 2541 | 2091 | 2071 | 1641 | 1301 | 621 |
|  | my | 35711 | 35639 | 32916 | 29751 | 23891 | 21796 | 19241 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| 1 | E-DSR | 19989 | 18437 | 14214 | 9571 | 7571 | 5951 | 5231 |
|  | NRCA | 781 | 591 | 511 | 461 | 401 | 351 | 321 |
|  | Optimal LEACH | 1991 | 2231 | 2041 | 1361 | 1011 | 881 | 791 |
|  | my | 26311 | 23093 | 20042 | 16691 | 14141 | 13071 | 10851 |

**5.2.3 Special2場景 剩餘能量**

**5.2.2 Special場景 剩餘能量**

**5.3 記憶體600 剩餘能量**

**5.1 平面路由方法 剩餘能量**

**5.3 記憶體800剩餘能量**

**5.3 記憶體400 剩餘能量**

**5.4資料壓縮**