# On the Wind Farm Cable Routing Problem Optimization via Path-Relinking Metaheuristic [1]

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| ID | A | B | C | D | ID | A | B | C | D | ID | A | B | C | D | ID | A | B | C | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Small instances | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 1 | 0 | 0 | 23 | 10 | 10 | 0 | 0 | 45 | 6 | 0 | 0 | 0 | 67 | 0 | 0 | 0 | 1 |
| 2 | 0 | 0 | 0 | 3 | 24 | 10 | 10 | 0 | 0 | 46 | 0 | 0 | 0 | 1 | 68 | 0 | 0 | 0 | 1 |
| 3 | 0 | 0 | 0 | 8 | 25 | 7 | 5 | 0 | 0 | 47 | 0 | 0 | 0 | 1 | 69 | 0 | 0 | 0 | 5 |
| 4 | 2 | 7 | 0 | 0 | 26 | 0 | 0 | 0 | 1 | 48 | 0 | 1 | 0 | 0 | 70 | 0 | 0 | 0 | 1 |
| 5 | 1 | 1 | 0 | 0 | 27 | 10 | 0 | 0 | 0 | 49 | 1 | 0 | 0 | 0 | 71 | 0 | 7 | 0 | 0 |
| 6 | 0 | 1 | 0 | 0 | 28 | 0 | 0 | 0 | 8 | 50 | 0 | 0 | 0 | 3 | 72 | 0 | 0 | 0 | 7 |
| 7 | 0 | 0 | 6 | 0 | 29 | 0 | 0 | 0 | 1 | 51 | 4 | 0 | 0 | 0 | 73 | 0 | 0 | 4 | 10 |
| 8 | 0 | 0 | 2 | 10 | 30 | 0 | 1 | 0 | 0 | 52 | 1 | 3 | 0 | 0 | 74 | 0 | 0 | 0 | 1 |
| 9 | 0 | 0 | 3 | 9 | 31 | 0 | 0 | 0 | 1 | 53 | 10 | 0 | 0 | 0 | 75 | 10 | 10 | 10 | 10 |
| 10 | 0 | 5 | 0 | 0 | 32 | 0 | 0 | 0 | 1 | 54 | 5 | 9 | 0 | 0 | 76 | 1 | 0 | 0 | 0 |
| 11 | 4 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 3 | 55 | 2 | 3 | 0 | 0 | 77 | 0 | 0 | 0 | 1 |
| 12 | 9 | 3 | 0 | 0 | 34 | 0 | 0 | 0 | 2 | 56 | 0 | 1 | 0 | 0 | 78 | 1 | 10 | 0 | 3 |
| 13 | 0 | 0 | 0 | 3 | 35 | 0 | 0 | 0 | 1 | 57 | 0 | 1 | 0 | 0 | 79 | 10 | 1 | 0 | 0 |
| 14 | 1 | 0 | 0 | 0 | 36 | 0 | 0 | 10 | 10 | 58 | 0 | 1 | 0 | 0 | 80 | 0 | 0 | 0 | 2 |
| 15 | 0 | 0 | 0 | 1 | 37 | 0 | 0 | 0 | 1 | 59 | 4 | 8 | 0 | 0 | 81 | 0 | 3 | 0 | 0 |
| 16 | 1 | 0 | 0 | 0 | 38 | 0 | 0 | 0 | 1 | 60 | 1 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 2 |
| 17 | 0 | 2 | 0 | 10 | 39 | 10 | 0 | 0 | 7 | 61 | 0 | 0 | 0 | 3 | 83 | 3 | 0 | 0 | 0 |
| 18 | 0 | 1 | 0 | 0 | 40 | 2 | 2 | 0 | 0 | 62 | 0 | 0 | 10 | 9 | 84 | 2 | 1 | 0 | 0 |
| 19 | 0 | 0 | 0 | 1 | 41 | 0 | 0 | 2 | 9 | 63 | 7 | 0 | 0 | 5 | 85 | 0 | 0 | 0 | 1 |
| 20 | 0 | 1 | 0 | 0 | 42 | 10 | 0 | 0 | 0 | 64 | 10 | 10 | 10 | 10 | | | | | |
| 21 | 10 | 5 | 0 | 2 | 43 | 0 | 0 | 0 | 1 | 65 | 9 | 0 | 10 | 10 | | | | | |
| 22 | 1 | 0 | 0 | 0 | 44 | 0 | 0 | 1 | 10 | 66 | 1 | 0 | 0 | 0 | | | | | |
| Medium instances | | | | | | | | | | | | | | | | | | | |
| 86 | 0 | 1 | 0 | 0 | 105 | 0 | 0 | 5 | 1 | 124 | 0 | 0 | 0 | 1 | 143 | 0 | 0 | 0 | 1 |
| 87 | 0 | 0 | 0 | 2 | 106 | 1 | 0 | 0 | 0 | 125 | 0 | 0 | 0 | 1 | 144 | 5 | 10 | 0 | 0 |
| 88 | 0 | 1 | 0 | 0 | 107 | 0 | 0 | 0 | 1 | 126 | 0 | 1 | 0 | 0 | 145 | 0 | 0 | 0 | 1 |
| 89 | 0 | 0 | 0 | 2 | 108 | 0 | 3 | 0 | 0 | 127 | 0 | 1 | 0 | 0 | 146 | 0 | 0 | 4 | 10 |
| 90 | 0 | 0 | 4 | 6 | 109 | 0 | 0 | 1 | 6 | 128 | 0 | 4 | 0 | 0 | 147 | 3 | 0 | 0 | 0 |
| 91 | 0 | 0 | 0 | 1 | 110 | 0 | 0 | 0 | 1 | 129 | 0 | 1 | 0 | 0 | 148 | 2 | 4 | 0 | 10 |
| 92 | 0 | 0 | 0 | 1 | 111 | 0 | 0 | 0 | 1 | 130 | 0 | 0 | 0 | 1 | 149 | 0 | 1 | 0 | 0 |
| 93 | 0 | 0 | 0 | 4 | 112 | 0 | 1 | 0 | 0 | 131 | 0 | 0 | 0 | 1 | 150 | 0 | 0 | 0 | 1 |
| 94 | 4 | 0 | 0 | 0 | 113 | 0 | 1 | 0 | 0 | 132 | 0 | 0 | 0 | 2 | 151 | 0 | 0 | 0 | 8 |
| 95 | 0 | 0 | 0 | 4 | 114 | 0 | 0 | 8 | 10 | 133 | 0 | 1 | 0 | 0 | 152 | 0 | 5 | 0 | 0 |
| 96 | 0 | 0 | 0 | 1 | 115 | 0 | 4 | 0 | 0 | 134 | 0 | 2 | 0 | 0 | 153 | 0 | 0 | 0 | 9 |
| 97 | 0 | 0 | 0 | 2 | 116 | 0 | 6 | 0 | 0 | 135 | 0 | 5 | 0 | 0 | 154 | 0 | 0 | 0 | 3 |
| 98 | 0 | 0 | 0 | 5 | 117 | 0 | 0 | 0 | 10 | 136 | 1 | 0 | 0 | 0 | 155 | 10 | 10 | 10 | 10 |
| 99 | 1 | 8 | 10 | 7 | 118 | 0 | 0 | 0 | 2 | 137 | 0 | 0 | 0 | 1 | 156 | 0 | 0 | 10 | 10 |
| 100 | 0 | 0 | 0 | 1 | 119 | 0 | 10 | 10 | 10 | 138 | 0 | 0 | 0 | 1 | 157 | 0 | 0 | 10 | 8 |
| 101 | 0 | 1 | 0 | 0 | 120 | 0 | 0 | 0 | 1 | 139 | 0 | 0 | 0 | 4 | 158 | 0 | 0 | 1 | 9 |
| 102 | 0 | 0 | 0 | 2 | 121 | 0 | 0 | 0 | 3 | 140 | 0 | 1 | 0 | 0 | 159 | 0 | 0 | 0 | 3 |
| 103 | 0 | 0 | 0 | 3 | 122 | 0 | 1 | 0 | 0 | 141 | 0 | 1 | 0 | 0 | 160 | 1 | 0 | 0 | 0 |
| 104 | 0 | 0 | 0 | 5 | 123 | 0 | 0 | 6 | 9 | 142 | 0 | 1 | 0 | 0 | | | | | |
| Large instances | | | | | | | | | | | | | | | | | | | |
| 161 | 0 | 0 | 0 | 3 | 171 | 0 | 0 | 0 | 3 | 181 | 0 | 0 | 0 | 1 | 191 | 0 | 0 | 0 | 1 |
| 162 | 0 | 0 | 0 | 10 | 172 | 0 | 2 | 4 | 9 | 182 | 0 | 0 | 4 | 10 | 192 | 0 | 0 | 7 | 2 |
| 163 | 0 | 0 | 0 | 10 | 173 | 0 | 0 | 2 | 4 | 183 | 0 | 0 | 5 | 10 | 193 | 0 | 0 | 0 | 2 |
| 164 | 0 | 0 | 0 | 3 | 174 | 0 | 0 | 0 | 9 | 184 | 0 | 0 | 0 | 10 | 194 | 0 | 0 | 0 | 10 |
| 165 | 0 | 0 | 0 | 10 | 175 | 0 | 0 | 0 | 3 | 185 | 0 | 0 | 0 | 10 | 195 | 0 | 0 | 0 | 2 |
| 166 | 0 | 0 | 1 | 4 | 176 | 0 | 0 | 1 | 10 | 186 | 0 | 0 | 1 | 10 | 196 | 0 | 0 | 6 | 10 |
| 167 | 0 | 0 | 6 | 8 | 177 | 0 | 0 | 4 | 10 | 187 | 0 | 2 | 0 | 0 | 197 | 0 | 0 | 6 | 10 |
| 168 | 0 | 0 | 0 | 6 | 178 | 0 | 0 | 0 | 10 | 188 | 0 | 0 | 0 | 7 | 198 | 0 | 0 | 7 | 10 |
| 169 | 0 | 0 | 0 | 7 | 179 | 0 | 0 | 0 | 8 | 189 | 1 | 0 | 0 | 0 | 199 | 0 | 0 | 1 | 10 |
| 170 | 0 | 0 | 0 | 8 | 180 | 0 | 0 | 0 | 2 | 190 | 0 | 0 | 0 | 8 | 200 | 0 | 0 | 0 | 7 |

Table 1: Number of executions for which the algorithms produced the best-found solution; A= PR5; B= PR6; C= VNS; D= MAHM