|                          | Recognition rate of model (%)    |             |             |                                   |       |
|--------------------------|----------------------------------|-------------|-------------|-----------------------------------|-------|
| Feature descriptor       | $\mathrm{KNN}\ (\mathrm{k}{=}1)$ | KNN $(k=3)$ | KNN $(k=5)$ | $\mathrm{KNN}\ (\mathrm{k}{=}10)$ | SVM   |
| Full image               | 78.33                            | 79.17       | 71.67       | 84.17                             | 70.83 |
| Dimensionality reduction | 57.92                            | 57.92       | 49.17       | 54.58                             | 31.67 |
| Gabor vector             | 24.58                            | 15.00       | 83.33       | 83.33                             | 79.58 |

|                          | Recall rate of model (%) |             |             |                                   |       |
|--------------------------|--------------------------|-------------|-------------|-----------------------------------|-------|
| Feature descriptor       | KNN $(k=1)$              | KNN $(k=3)$ | KNN $(k=5)$ | $\mathrm{KNN}\ (\mathrm{k}{=}10)$ | SVM   |
| Full image               | 90.00                    | 85.00       | 80.00       | 95.00                             | 69.00 |
| Dimensionality reduction | 65.50                    | 65.50       | 55.50       | 62.00                             | 31.00 |
| Gabor vector             | 11.00                    | 0.50        | 100.00      | 100.00                            | 77.50 |

|                          | Precision rate of model (%) |             |             |            |       |  |
|--------------------------|-----------------------------|-------------|-------------|------------|-------|--|
| Feature descriptor       | KNN $(k=1)$                 | KNN $(k=3)$ | KNN $(k=5)$ | KNN (k=10) | SVM   |  |
| Full image               | 84.91                       | 89.47       | 85.11       | 87.16      | 94.52 |  |
| Dimensionality reduction | 80.37                       | 80.37       | 77.08       | 78.98      | 70.45 |  |
| Gabor vector             | 88.00                       | 16.67       | 83.33       | 83.33      | 97.48 |  |

|                          | Specificity rate of model (%)    |             |             |                                   |       |
|--------------------------|----------------------------------|-------------|-------------|-----------------------------------|-------|
| Feature descriptor       | $\mathrm{KNN}\ (\mathrm{k}{=}1)$ | KNN $(k=3)$ | KNN $(k=5)$ | $\mathrm{KNN}\ (\mathrm{k}{=}10)$ | SVM   |
| Full image               | 20.00                            | 50.00       | 30.00       | 30.00                             | 80.00 |
| Dimensionality reduction | 20.00                            | 20.00       | 17.50       | 17.50                             | 35.00 |
| Gabor vector             | 92.50                            | 87.50       | 0.00        | 0.00                              | 90.00 |

|                          | F1 rate of model (%)             |             |             |                                   |       |  |
|--------------------------|----------------------------------|-------------|-------------|-----------------------------------|-------|--|
| Feature descriptor       | $\mathrm{KNN}\ (\mathrm{k}{=}1)$ | KNN $(k=3)$ | KNN $(k=5)$ | $\mathrm{KNN}\ (\mathrm{k}{=}10)$ | SVM   |  |
| Full image               | 87.38                            | 87.18       | 82.47       | 90.91                             | 79.77 |  |
| Dimensionality reduction | 72.18                            | 72.18       | 64.53       | 69.47                             | 43.06 |  |
| Gabor vector             | 19.56                            | 97.09       | 90.91       | 90.91                             | 86.35 |  |

|                          | False alarm rate of model (%)    |             |             |                                   |       |
|--------------------------|----------------------------------|-------------|-------------|-----------------------------------|-------|
| Feature descriptor       | $\mathrm{KNN}\ (\mathrm{k}{=}1)$ | KNN $(k=3)$ | KNN $(k=5)$ | $\mathrm{KNN}\ (\mathrm{k}{=}10)$ | SVM   |
| Full image               | 80.00                            | 50.00       | 70.00       | 70.00                             | 20.00 |
| Dimensionality reduction | 80.00                            | 80.00       | 82.50       | 82.50                             | 65.00 |
| Gabor vector             | 7.50                             | 12.50       | 100.00      | 100.00                            | 10.00 |