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Lappeenranta **University of Technology**

LUT Machine Vision and Pattern Recognition

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BM40A0700 Pattern Recognition

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Exercise 8 solutions: Common linear and nonlinear classifiers

1. Linear support vector machine (SVM) (2 points): not published.
2. Nonlinear SVM classification (1 point): A Matlab function

```
testclass = svm2(traindata, trainclass, testdata, C)
```

that performs classification of `testdata` using a second-order polynomial SVM is given as a separate file.

Additional files: `data1.mat`, `data2.mat`, `data3.mat`, `Kern.m`, `svm2.m`.

3. K-nearest-neighbour (kNN) classifier (1 point): not published.