**Lab project 2**

Due date & time: 6:30 pm, October 10th, 2018

Please read the paper “Main\_Machine Learning for The Preliminary Diagnosis of Dementia.docx” in the file folder dementia\_prediction/MainProject.

Fig 1 in this paper shows the workflow of this project. You can find the data and code files in the file folder dementia\_prediction/MainProject/Project.

**What you need to do:**

Run the feature selection and classification algorithms. Compare the performance (accuracy, specificity, sensitivity, F-Score).

Write your report to demonstrate your own understanding about the methods.

**Open questions (optional):**

Can you find any other methods for feature selection and/or diagnostic modelling? Can you show us your results?

Notes:

1. This is a paper we submitted recently. The clinical study enrolls 5,272 patients from 3 medical centers (identifiers have been removed). You can contact Haipeng Tang for additional information about the data.
2. The paper in the file folder dementia\_prediction/OtherReferencePaper may help you understand the clinical background.