Automation Lab Winter 2014/2015

Prof. Dr. A. Pech

Project task

Character recognition is an important task in machine vision. Your task will be to recognize single characters or digits, which are displayed on the large screen in room 8-103. The display time for one single character is approximately 10 seconds. There is either exactly one character (or digit) or no character on the screen. One character is followed by another without interruption.

The goal is recognizing each of the characters or digits and subsequently displaying the result of the recognition on a small computer screen.

The task has to be worked on in teams of 6 members. The team members have to elect a team leader. Each team member has to submit a technical report of her/his individual part of the project. All these technical reports together should describe the task solution in such a way that it can be rebuilt by other students.

The problem has to be solved with a microcomputer starter kit. Each team will get such a starter kit at the beginning of the project. Each team is fully responsible for its starter kit.

A Power-Point file with test data will be provided.

Processing hints:

Project report: Individual report. All necessary technical information needed to rebuild the solution must be provided. Please note that even if the technical task is solved to 100% the individual grade could be "5" in case of a poor report.

Covering page: authors name, matriculation number, name of the course, title, team number

Main body: 1 ½-line spacing, font Times New Roman 12 pt, scaling 100%, tracking normal

Footnotes: single line spacing, font 10 pt, for the rest see above.

A printed copy of the project report has to be submitted to the examination office of the faculty (building #1, room #212).

The source code and a digital copy of the documents (WORD file) must be uploaded to the E-learning server before deadline expiration.

Submission deadline: At the latest 6 month after issue date of the exam subject (= 12th of May 2015)

Presentation: personalized date.

I wish you success!

A. Pech

Grades

1 More than 90 % of all test specimen are classified correctly.

2 More than 75% of all test specimen are correctly classified

3 More than 80 % of the given test specimen of the character "A" are correctly classified

4 More than 60% of the given test specimen of the character "A" are correctly classified

5 Late submission or poor project report (even if the technical solution is working well)