

ISS0023 2018 exams

177308

Page limit!

For example, why page 8, 9 and 12 are needed. The pictures on these pages just draw all inputs.

In Chapter 3, there is no comparison of recognition with noise and without noise. Did the classes remain the same after adding noise?

As images without noise were not tested, it is not possible to say if they were recognised correctly or not only by presenting distribution between classes.

184219

Task2: Demonstrate that both systems (supervised and selflearning) are capable of recognizing correctly all images with noise level 0.17.

p. 3: Below is a bad example of trained NN with only 10 neurons, there are 3 recognition errors at positions: 4 8 10.

No positive result.

177286

Task1

Controlled system is not Jacketed CSTR (see p.3 - unnamed figure)

For example, for the student code 170878,  $y_{SP1}=0.5$ ,  $y_{SP2}=0.8$ . But what is in your case?

There are another SP intervals on all simulations! (pp.7-9) and the transient process doesn't converge to these SPs.

Task2

Demonstrate that both systems (supervised and selflearning) are capable of recognizing correctly all images with noise level 0.17.

Recognition of All images using Supervised learning is not presented

p. 11 Why all images are in the 7th group?

Why do you test LetterE (see p.10)

177304

Why did you test only 17 images (not all 24)? - figure 1

177188

Task1

Controlled system is not "Jacket"

Why simulations with  $SP=0.8$  are not presented?

Task2:

Why test\_data matrix is needed in the report?

"all numbers are evaluated with 17% as displayed in the table blow " - page 9,

but reference groups without noise are not presented. There is nothing to compare with.

177306

Task2

Too much unnecessary information. - not relevant to the task!

For example, experiments with 25% and 35% noise were not needed!

*Test Result with 17% noise to all Greek characters is only on the 9th page!!!*

178180

Task 2.

Figure 3: Controller is not adaptive, like written on the first sub-plot (static error remains). Disturbance on the 50th sample doesn't influence output!

177309

Task 1. Used gain is 1. It doesn't make any sense. Nothing changes!

Discrete time integrator should reduce static error. Input of the integrator should be control error, not set point like depicted on the figure 8. One input of "Add" block is missing.

177186

The grades for 6 questions of the task are as follows:  $10+2+5+7+0+2 = 26$  (out of 50)

177288

Task 1:

page 2. You identified NN-based model of the process. Why did you need it? It is not used for control.

Figure 4 - why do you apply control to a model, not to a Liquid Level system itself (figure 1).

Task 2:

Transit, logs are not solvers.

"it's found that minimum amount for  $t_d=10$  is 100 " - minimum amount of what?

172616

Task 1:

Why block Jacket was used to collect data (figure 2), but some other system called "Controll Signal" (figure 1) was controlled.

177246

Conclusions are missing in both reports. That is why the grade is between 5 and 4.

184767

No control scheme for the second task

177305

Task1: Conclusion 3 - "**Here the output is almost close to 0**". In fact, output is not 0, error is 0.

Task 2: Sample time  $t_d$  is defined inside the given Sub-system and can be observed by a simulation.

What does figure 4 present? What is "data" (axis y)?

177309

Task 1:

Figures 7 and 9 only present the input letters. Where is recognition result (Matrix P according to the code on figures 6 and 8)?

In case of unsupervised learning, how do you conclude that a letter is recognised correctly?

Page 9:

```
test=letter9+randn(35,24)*0.06;
```

```
t=sim(net_c,test);
```

```
test_out=vec2ind(t)
```

Noise level is 6%, not 17%.

test\_out is not presented.

Is letter9 recognised or not?

184780

Task1:

on page 7: testSL\_origin = sim(net,greek\_alphabet) %self-learning NN sim with original alphabet

Net is a supervised network, not self-learning according to

```
net=newff(minmax(greek_alphabet),[15 24],{'logsig','logsig'},'traingda') (page 3)
```