FACULTEIT ELEKTROTECHNIEK WISKUNDE & INFORMATICA

DATUM 9 April 2019 OUR SIGNATURE EWI18/BOZ/8226

Concept MINUTES OF THE PROGRAMME COMMITTEE-S&C MEETING 9 April 2019 12.00 hr.

5 Present: Sarthak Misra (Chairman), Ronald Aarts, Francesco Nex, Maarten Korsten (Master coordinator), Edwin van Boven (student), Mitul Agrawal (student), Atul Hari (student), Jan Willem Polderman (Program Director), Chantal Molenwijk (minutes) Absent: None

10 **1. Opening**

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The meeting is opened at 12.09 hr.

2. Announcements

There are no announcements.

3. Minutes meeting March 4th 2019

There are no remarks on the minutes.

Action items

- 8: remains; Korsten provides an update. He wrapped up what he had in store. De Willigen told him there is an online course about literature searching. At this moment it is still on Blackboard. Korsten has asked her to transfer this to Canvas so it will be available to students.
- Secondly, Korsten had an idea about the new course Perspectives on Design that contains a literature section. Korsten proposes to ask De Willigen to make an afternoon available to provide information about possibilities for literature search and specifically about the facilities that we have at the university. Students can use this light form of literature search during the course. During the programme students might also express if they need additional help during the master project. Aarts replies that it might be a good idea to integrate literature search with the course so that students can get some structure in how to search for literature; Google is not always the best option
- 30 for this. Korsten adds that this course has a fixed point of time so it could be a starting point. He questions whether or not this would be sufficient or that there should be an additional part to the master thesis. Literature search should be a part of the master thesis but it is not an official separate element. It is on the list of topics that need to be graded. It could be added as a suggestion for time division. Some have more prior knowledge about this than others. Generally,
- 35 bachelor students from the UT will have the necessary knowledge. There is also a homologation course available, namely academic skills.
 Koreton asks that if it is assumed that students do have prior knowledge about academic

Korsten asks that, if it is assumed that students do have prior knowledge about academic skills, is it then enough to have an introduction from De Willigen or does this topic need to be added to the master thesis as well. Polderman thinks it should be an integrated part of the final thesis and

40 assessed by De Willigen and not by the supervisors. What he has seen is that supervisors have a different objective and they give the literature to students so they can make a quick start. Searching for literature in a professional way should be part of the final assignment and it should be assessed by someone whose profession it is to assess these things. Polderman proposed De Willigen does this. Misra would want to know what her qualifications are. He is sceptical. Polderman stresses that

45 De Willigen can check if the literature search has been done and if it has been done properly. She would not assess the relevance of the research or look at the content. 56: add to next agenda; waiting on AP 59 and 60 57: completed 58: remains; Misra will write a draft replaces philosophy of engineering: science

58: remains; Misra will write a draft replaces philosophy of engineerii 50 59: remains

60: completed; Agrawal sent an email to Polderman; **AP** Resent to Polderman and Maarten 61: completed; will be discussed at agenda topic 8

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62: completed; Korsten checked with the lecturer about approval for the student's research articles. The lecturer denied that students should look for approval of their articles. It is not necessary. The only thing was that the students are responsible for looking and getting an interesting article and use it for the course. Next year, Korsten might inform the staff members that they can get some requests from students to discuss articles but they don't have to approve them. That was the

5 requests from students reaction of the lecturer.

Korsten clarifies that this relates to the successor of Philosophy of Engineering: Science course. Students are required to look for papers in a direction they are interested in for graduation. Such a paper should be used for the course to answer questions about. Students think they need

- 10 approval for these papers but that is not necessary. Agrawal mentions that there is no one to make sure that students choose an article that interests them rather than one that is easy. There is no check if it is really related to the study. The lecturer does not approve articles. **AP** Agrawal's comment can still be discussed with the lecturer. Korsten could discuss how to solve this but thinks it is not necessary to have a formal approval.
- 15 63: remains; PD already has a few names. AP An invitation letter should be written to be checked. 64: completed; Aarts states there are three courses in the current TER that are relevant new courses for S&C. The courses Dynamics & Control and Dynamics of Machines will be discontinued next year. AP A proposal about the replacement course Flexible Multibody Control can be sent to Molenwijk and Polderman. A proposal has also been sent to ME and Gommer. There is also a new
- 20 course Control for BME, however it seems like this course is not suited for S&C students due to overlap with Digital Control Engineering. The master renewal will take place in 2020. Motion and vibration control was also unavailable last year.

4. Master TER Faculty EEMCS 44:00

25 **AP** An advice about the proposed TER changes needs to be sent to the faculty board today.

Page 8 – Article A2.2 Language requirements, Paragraph 3

Native English speakers are no longer exempted from proving their proficiency in English. It is unclear why that is the case. There seems to be an anomaly between the language

30 requirements information on the website and in the TER. What is the logic behind removing this? **AP** Korsten will check this.

There is a short inquiry about the combined programmes, specifically how many students follow a combined programme. These numbers are increasing. The changes are acceptable.

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Korsten states that there has been a meeting about the Master Faculty TER. Grinsven made some changes to this TER. The language requirements where not discussed in the meeting.

There are no remarks on the other changes. The other changes are agreed upon.

5. Master TER S&C

Page 7 – Article B3.2 Pre-Master's programme for students from a Dutch University of Applied Sciences

In the table containing the Pre-Master's programme, the course Control Engineering (CE) is

- 45 mentioned. Agrawal states this is basically the replacement for Engineering System Dynamics (ESD) to which Korsten replies that this is not the case. CE is part of the bachelor module Systems and Control. That module consists of 4 parts, one of which is System Dynamics but another part is CE. That is meant here. During the HBO pre-master's programme, students will not do the ESD course but will do CE as a homologation course. Agrawal states it is not stated
- 50 anywhere that you have to follow ESD as a homologation course and would like to have that information available for students.

Page 7 – Article B4.2 Core Programme

In response to this there is a discussion about ESD. The advice of the lecturer is to finish ESD before taking Modelling and Simulation. Korsten proposes to add information about ESD as required course for Modelling and Simulation to the website. Agrawal insist prior knowledge is missing and not known. Moshtaq add that he receives feedback from students that the software

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20SIM is not relevant anymore in the work field. An advisory board could help in checking these claims.

- Misra leaves the meeting at 13:04 hr. -

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The information about prerequisites for Modelling and Simulation is stated in Osiris. Course information is in Osiris and should not be doubled in the TER which is a legal document. It is however important to avoid misunderstandings. The problem here is not that there are homologation courses but the problem is that everybody from outside does not have the

- 10 prerequisite course ESD. The PC could advise that something should be done about this. The lecturer could be asked to make the course more accessible. Korsten says they took one step towards this. A setup for February starters was worked out. After the second semester students could start with the first part for ESD as self-study, then start the course Modelling and Simulation, followed by finishing the second part of ESD. Korsten states that no detailed
- 15 information about ESD is given beforehand because it is assumed that students will discuss their options with the programme mentor. However, only the local students from EE have ESD as prior knowledge. Students from other UT bachelor programmes often do a homologation during the bachelor minor.

There are differences between Modelling and Simulation at the UT and in Delft. UT focusses specifically on bond graphs. It's a strong local feature. Aarts questions if the information about ESD in relation to Modelling and Simulation should be changed in the TER. Korsten proposes to explain within the core programme that the course Modelling and Simulation requires students to do the ESD course first so they will have an additional 5 credits in their course programme. It is mentioned in Osiris however. Polderman proposes to refer to

25 Osiris as Osiris also has a legal status. It is concluded that information about prerequisites should be on the website describing the core structure of the master. **AP** Korsten will add this to the website.

Page 7 - Article B3.2 Pre-Master's programme for students from a Dutch University of Applied Sciences

Agrawal states point four is unclear: 'students from a Dutch University of Applied Sciences may be allowed by the Admission Committee to follow the pre-Master's programme as a part of their bachelor's programme. He questions what this means. Polderman replies that a University of Applied Sciences is for instance the Saxion and this is not the same as a university, even

35 though they call themselves a university. Students can follow a pre-Master's programme during their minor to prepare for a master programme.

Polderman states it is strange they should seek allowance from an Admission Committee. Korsten adds that normally if a student from a Dutch university of applied sciences applies for admission here, they have to do a premaster here. If they did pre-Master's courses during their

- 40 minor they will have admission here. They need permission from the Admission Committee to do this pre-Master. Korsten has to sign if these students want to get permission to do a pre-Master's programme during their bachelor minor. Korsten admits these students for the pre-Master and if they have completed the programme, Korsten writes a letter to allow them to start the master's programme.
- 45 Polderman believes it should state that students have to be admitted when they wish to follow a master's programme here. If students just want to do the courses, not for admission to a master, then students should be allowed to do these courses anyways. Agrawal replies that this point four is a follow-up to the first point about the pre-Master's programme admission requirements.
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- Moshtaq leaves the meeting at 13:31 hr. -

Agrawal states the Philosophy of Engineering: Science course has to be replaced with the successor Epistemological Perspectives on Engineering Design Processes. Korsten adds that not all courses are known yet. Some courses are still missing. The courses need to be finished

in Osiris as well. **AP** Korsten will make the necessary changes to the TER.

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Page 8 – Article B4.4 Electives

The table listing available specialisation-linked an elective subjects has to be updated with new courses for the next year.

5 Page 9 – Article B4.6 Internship

Polderman adds that the word 'member' should be replaced with 'paragraph'. This is a literal translation. Whenever there is a mention of member (meaning paragraph) in the TER, it should be changed to paragraph. **AP** Korsten will check the document and change member to paragraph where necessary.

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Paragraph 1, requirements for starting the internship, Subject D: Van Boven states that Article B4.3 should be changed to Article B4.2 Core Programme. There are no courses mentioned in Article B4.3 because it is about Specialisation-linked subjects.

15 Point D can be removed entirely because the non-technical courses are part of the mentioned core programme in subject C.

Paragraph 1, requirements for starting the internship, subject C:

Aarts proposed to change the sentence 'students must have completed the compulsory specialisation courses' to 'students must have completed the core programme'. The same terminally should be used consistently throughout the document.

Page 3 and 4 – Article B2.3 Final Qualifications

Polderman adds to the remarks on terminology that it is more common nowadays to talk about 'programme intended learning outcomes' instead of final qualifications.

Page 11 - Article B4.8.4 Sequence of examinations

Van Boven argues that the order of phrasing should be reversed (i.e. students may start their master's thesis when their individual project is completed) because this is the general order that has been used throughout the document.

Page 13-17 – Assessment forms internship and graduation project

There are two forms added as appendixes: the internship assessment and the graduation project assessment. Molenwijk mentions that the Examination Board is considering making some changes to the current graduation project assessment form. Aarts ask if the form could still be changed if it is in the TER. Korsten adds that it should be evaluated by the PC. Aarts questions if the assessment form should be added as an appendix. Polderman argues this is supporting material and would not need to be added to the TER. You have to weigh the advantages and disadvantages. **AP** Korsten will remove the forms from the TER. The forms will

40 be replaced with a link to the website containing the forms.

6. Language Policy

Polderman has a small remark: the language policy might be more directed towards bachelor programmes. It is good to have an inclusive approach. Polderman questions if these documents are also relevant to the master's programme. He thinks the documents might be too formal. This topic will be postponed to be discussed during the next meeting.

7. Advisory Board – Invitation Letter 1:42:00

Polderman does have an invitation letter but he would like to have more names of for instance collaborators and internship supervisors. They should be in the Netherlands (or live within an acceptable distance) but they should be able to participate in meetings. This topic will be postponed to be discussed during the next meeting.

8. Second Training Course

55 This topic will be postponed to be discussed during the next meeting.

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9. A.o.b.

There should be another meeting planned for the summer to discuss remaining topics. The next meeting will be planned to take place in May. Another Doodle will be send to determine the date.

10. Questions

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There are no further questions.

11. Closure

10 The meeting is ended at 13.55 hr.

Action items

No	Description	From meeting	Responsible
8	Consult De Willigen about literature assignment, involve EE in this	10/4/2013	M-coordinator
56	Put the item: Reverse order Internship and Graduation project, on the agenda	04/03/2019	Chairman
58	Give a positive advice for Epistemological Perspectives on Engineering Design Processes to the Program Director	29/10/2018	Chairman
59	Prepare discussion about the reverse order Internship and Graduation	04/03/2019	Korsten & Management team
63	Send a list of names and invitation letter for potential members of the advisory board to the program committee	04/03/2019	Program Director
65	Send e-mail to Polderman and Korsten about the situation regarding the reverse order Internship and Graduation	09/04/2019	Student (Agrawal)
66	Discuss possibilities for checking/approving articles with lecturer Philosophy of Engineering: Science	09/04/2019	Korsten
66	Send a proposal for the new course Flexible Multibody Control to Polderman and Molenwijk	09/04/2019	Aarts
67	Send advice about proposed changes TER to faculty board	09/04/2019	Chairman
68	Check why the language requirements for the Faculty TER have been changed	09/04/2019	Korsten
69	Correct the S&C TER in regards to the proposed changes	09/04/2019	Korsten
70	Add prerequisite requirements for compulsory course Modelling and Simulation to the website	09/04/2019	Korsten
71	Add language policy, Advisory Board (invitation letter) and second training course to next meeting's agenda	09/04/2019	Chairman

Completed action items

No	Description	From meeting	Responsible
57	Check if there will be a second training session organised by the University	04/03/2019	Programme Director
60	Write an email about the situation regarding the reverse order Internship and Graduation	04/03/2019	Student (Agrawal)
61	Check with Frank van den Berg if there will be a second training session	04/03/2019	Program Director
62	Check that responsible people from research realize that they are responsible for approving student's articles	04/03/2019	M-coordinator
64	Check if relevant courses from the Robotics and Mechatronics specialization (Mechanical Engineering) are matching or that there are new courses relevant for S&C	04/03/2019	Aarts