

UNIVERSITEIT TWENTE.

FACULTY ELECTRICAL ENGINEERING, MATHEMATICS AND COMPUTER SCIENCE

DATE: 1 FEBRUARY 2024

OURREF: EEMCS23/BOZ/10962/NL

Minutes 186th PC-AM-meeting Tuesday 21 November 2023 15:45 – 17:15 hr. Zilverling 1016

- 5
- Present:* A.A. Stoorvogel(PD), M. Snoeren (Student member), N. Luijten (Minute maker), E. van der Veer (Student member), B. Manthey (staff member), A. Betken(replacing Proksch, staff member), F. P. Schuller(Chairman), J. Schut(M-coordinator), J.P. Boon (Student member), Q. Van Dongen(Abacus), C. Pérez (Staff member)
- 10
- Absent with notice:* K. Proksch (Staff member), L.S. Lanting (Student member), J.B. Timmer(B-coordinator),
- 15
- 1. Opening**
The chairman opens the meeting at 15:45.
- 20
- 2. Minutes 185th meeting 13 June 2023**
Page 1 Line 38: could be put in place
Page 2 Line 50: Matthias with two t's
Page 5 Line 179: Dijksterhuis instead of Dijkstra
Line 185: Classical paper → classic. He does not think ...
- 25
- With these changes, the minutes are approved.
- Action points:
- 481 – Stays on the list
The PD is still in contact with Walter. Van der Veer says that some students have
- 30
- been informed.
- 35
- 3. Announcements**
No announcements.
- 40
- 4. Advice / correspondence**
- Mail PD – Training sessions for the members of the programme committee Autumn 2023
The chair did a training session during Corona that was not really helpful. He asks for the experience of the other members. Manthey says he did one with the whole PC before Corona, and it was okay. Pérez asks who is in charge of this training. The chair does not know. There seems to be an online part and an on-campus part. Shall I inquire with Meijer and ask if it is useful? The M-coordinator says that on the website it says that it is offered by

UNIVERSITEIT TWENTE.

DATE: 1 FEBRUARY 2024

OURREF: EEMCS23/BOZ/10962/NL

one of the central services. The members already received an email about this. The enthusiasm is low.

45 - *Mail Vice-Dean – elections*

There was a letter from the vice dean for education informing all programme committees about the possibility of holding elections for their members. The letter also asks the PC-AM to communicate their opinion on this matter to the vice dean. The student members do not think there should be elections.

50

Furthermore, there is a lack of candidates to have a real election. Pérez thinks it would be good to have elections for the students. Boon says that elections will not solve the scarcity of students who want to join the PC. The chair wonders how many people would vote.

55

Manthey suggests replying to the vice dean that we keep it as it is, but we are aware of the possibility, and it might come into place in the future. Pérez thinks that if you have elections, it makes people aware that the PC exists. The chair asks the students for a final statement, and they think it is better to keep it as is for the reasons mentioned.

60

In summary, weighing the effort for the elections, the expected lack of more candidates than open slots, the expectation of a low turnout and the need for keeping representatives for all groups at DAMUT against the speculative potential of elections to create more awareness for the existence of the PC among students and staff, the general opinion of the PC remains that the current method of suggesting and appointing appropriate new members serves the key purpose of the PC well and should be continued. The chair says that he will

65

- *Advice Nonlinear Optimization and Learning*

No comments.

70

- *Mastermath – OC meeting 10 November 2023*

No comments.

75

- *Mail B-coordinator – Nonlinear Optimisation and Learning in 2A*

No comments.

80

- *Mail PD – New model for Finite Element Methods*

The teacher wrote a proposal to change the examination model a little. Previously it was the case that group projects were possible, but everyone had to have their own part which was evaluated individually. The new idea is to have two distinct parts, with the first one being evaluated individually and the second one as a group. The committee briefly discussed the change. The chair remarks that he has not met a student who would not complain about the group project always being graded in a group, and individual people being treated unfairly if other students do not pull their weight. Van der Veer heard some complaints, but only for

85 groups where the whole group did not pass due to groupmates not contributing. He did not
hear complaints from groups that had a lower grade but did pass. Boon says that there are
projects where you can divide some points among the students. Perez thinks what is
happening with FEM, is that there is a lot of variation in the programming skills of the
students. The teacher is making sure that the students know how to code FEM in the first
90 part, that is individually, and the second part is with software, so they get more from the
course than having a code that does not work. The chair is always in favour of letting the
teachers have maximal freedom to make their teaching idea work, but that in turn they
carry the responsibility for indeed making it work. All members are in favour and approve
the proposal.

95

5. Bachelor evaluations

- Intermediate evaluation Module 1

100 Van der Veer thinks it is weird that some students find it unclear that their university email
and associated Outlook calendar are being used for communication. The chair says that in a
professional workplace, you must read your email. Is there a lesson to be learned here for
the programme? The PC does not think so, students just need to read their email.

105 Boon thinks the evaluation is very positive, especially comparing it to last year's evaluation.
There were a few comments about the collaboration course. For the individual part,
students thought the exercises were obvious and not very useful.

110 Pérez agrees that the evaluation is much better than last year. The students are less affected
by the pandemic than last year.

115 Some students state that they do understand which parts are calculus and which are
analysis. Pérez and the chair say that they also cannot define the difference. The chair
emphasizes the need to teach students from day one to be precise and that the distinction
between Analysis (as the precise part) and Calculus (a less precise part) is harmful and
unclear. Pérez says that the learning process could be tricky if one starts the course too
rigorously, since students have no intuition about theorems and definitions and that they
only see it when the teacher shows the example. What he would prefer therefore, is to
present a theorem with all the rigour, let the students work on an example that applies the
theorem, and only then prove the theorem.

120

125 Boon says that that is still different from what their year group had. Pérez is not advocating
to go back to how Analysis and Calculus used to be taught. Manthey says that Calculus was
together with Physics, and everything was in a weird order. Boon asks if it is feasible to make
a draft about what you think would be better for this course. The chair thinks it would be
less confusing to not talk about Calculus, have a course called Analysis and not mention the

UNIVERSITEIT TWENTE.

DATE: 1 FEBRUARY 2024

OURREF: EEMCS23/BOZ/10962/NL

130 term Calculus at all. Pérez says it is also hard to write the exam if the distinction between the courses needs to be in there. The chair asks if it is fair to have a preliminary opinion that maybe we can remove the Calculus terminology. Each exam problem tells the student what to do. The PD says that the only danger is that we want to make sure that students cannot pass the course by skipping over the Analysis part. Boon thinks this is just a matter of exam design and the chair agrees. In Analysis I, the majority is Analysis, while in Analysis II, there is a larger part of Calculus. Manthey thinks this problem can be solved by changing the grading system. Pérez says he can remove the hassle of dividing the exam into Calculus and Analysis questions. He can call the questions “problems” for Analysis and “exercises” for Calculus.
135 The chair thinks that exam design can be a solution. Van der Veer mentions that there are students who only need to retake the Analysis part. This is not an option anymore if there is only one exam.

140 The chair says that the distinction is confusing. The PD says we can think about the exam design. It would be bad if students could pass the course by strategically skipping part of the course. We have to think about how we can design the exam. Boon asks how many students have passed Analysis. He heard that there were only 5 students that passed. Pérez says that we had a discussion on how to design the exam, but that is not what the students want. During the lectures, they want to have a clear separation on what is Analysis and what is
145 Calculus. He does not think that that is possible. The PD says that some students focused on Calculus for the exam, and Analysis on the resit. Then this student had a problem because the separation was not clear in the lectures and overall materials. The idea behind this strategy is not great, but this is where the comments come from.

150 The chair says that just calling the course Analysis would solve the ill-defined distinction between Analysis and Calculus and likewise some ill-conceived strategies for passing the exam. The chair wants to discuss this topic again next time, so the PC can decide on a recommendation.

155 Van der Veer has one more comment about module 1 programming. The evaluation reads that a student got a somewhat aggressive response to a question and did not receive an explanation. Snoeren explains that the person who mentioned this said it happened to a friend. The entire situation was pretty vague. Manthey says he was involved in the programming part. What the teachers did sometimes, instead of giving an answer, they
160 would refer to a video. He could imagine that it was something like that, but he does not know. Pérez does not think this is aggressive. The chair concludes that there is too little information to discuss this point further.

- *Intermediate evaluation Module 5*

165 Boon mentions that there was no module introduction. It gives a nice start to the module. The chair suggests writing an email to the module coordinator, to inquire why this was not the case.

DATE: 1 FEBRUARY 2024

OURREF: EEMCS23/BOZ/10962/NL

- Evaluation Module 4

170 Pérez asks if the students learn Python. Snoeren says that all the TAs taught this course
using Matlab and they did not know how to do it in Python. Pérez thinks this course should
be in Matlab. The chair says the lecturers are aware of this problem now, and they should
make a decision on how to handle this next year. The PD says that the programme switched
to Python last year. The TAs from previous years did not do this course in Python. Pérez sees
175 this course as an opportunity for the students to learn Matlab. Manthey explains that in the
previous curriculum, there were many different programming languages and that the
students never learned proper programming in any one language as a result. He would
rather have the students learn one language properly than snippets of many different
languages. The PD says that many studies are now using Python in favour of Matlab. He
180 wants the Mathematics students to be proficient in at least one programming language. The
philosophy was that if we start teaching three or four different programming languages, no
one really gets good at any one of them. Now we teach the students to be proficient in one
programming language, and then there is not much of an effort to change to another
language.

185

The chair asks what the students think. He follows the opinion of the PD. However, he sees
the point of Pérez as well. Pérez thinks that it is also a cultural thing. The chair summarizes
as follows: We discussed the new philosophy of learning one programming language well
and see no reason why to recommend a change of that strategy, since there is a serious
190 argument for it. The tutors of a course should of course use the programming language that
the students are asked to use.

- Evaluation Module 8

195 Van der Veer saw that the lecturer wanted to change the name of the course from Dynamic
Programming to Sequential Decision making under Uncertainty. He thinks that is a rather
long name. Boon replies that this is a response to the students who thought Dynamic
Programming was the tool and not the topic. The chair thinks it is at the discretion of the
lecturer how he calls the course. Pérez says that this is how people see our programme from
the outside. If there is this long name, I would not know what the course is about. Manthey
200 says it is not even a course, but a subsection of a course. The chair says that this clearly
resolves the discussion, since the programme committee does not micromanage subsection
titles.

- Evaluation Module 12

205 Pérez asks why Complex Function Theory is at the end of the curriculum. The PD says that it
does not fit anywhere else. Pérez thinks it would be better to have it directly after Analysis 3.
The PD says it cannot be placed earlier. If you want to have it earlier, another course needs
to go. Pérez says he would not skip anything, just swap it. The PD asks him with which
course he would switch CFT. Pérez does not know, but CFT is very basic, and it makes no

DATE: 1 FEBRUARY 2024

OURREF: EEMCS23/BOZ/10962/NL

210 sense to put it at the end of the curriculum. Pérez thinks that maybe we should rethink the
order of courses. Boon adds that CFT is experienced as not one of the easier courses. It
happens that students fail CFT, and have a whole year of delay. The chair says this could
215 happen with any course. He finds it odd though that the minor is concentrated in one half
year. Couldn't there be minor courses throughout the studies? The PD says this is enforced
on all bachelor studies from the university. Pérez has one more reason. Would it not be
easier for the students to have CFT after Analysis 3 when they have the ball rolling? The PD
agrees, but the problem is that there is just no space. Module 7 is with TCS, module 8 is very
coherent, and then there is the minor. They are just stuck with this format. The chair agrees
220 with the problem from a contents perspective, but he does not see an administrative
solution. He seriously encourages Pérez to think of a solution, since content should reign
supreme over administrative difficulties. The PD adds that CFT is a 3 EC course, which makes
it harder to swap it with any course in the curriculum. The chair concludes that is an
organizational problem to do it otherwise. It is agreed that, currently, no one knows a better
solution, although content-wise it would be a good idea.

225

6. Master evaluations

- *Mastermath course Inverse Problems in Imaging*

No comments.

230

- *Mastermath course Nonparametric Statistics*

No comments.

- *Mastermath course Mathematical Neuroscience*

No comments.

235

- *Pioneers of Applied Mathematics (SEQ feedback from teacher)*

The group size was very large. The teacher said it was not optimal and there should be more
attention paid to the presentation of the students. Pérez asks how many ECs this course is
worth. It is 5 Ecs. The students make a report and a presentation. The chair and Pérez think
240 that it is a lot of ECs for such a course, compared to those awarded for core courses a
mathematics bachelor student is expected to master. The M-coordinator thinks that Dijkstra
has set up the course well and that it is really interesting. Pérez thinks that it is the role of
the individual lecturer to teach about the history of their course. The M-coordinator says
that when it was introduced, there was a need because lecturers did not include it in their
245 courses and that the course is taught by an expert on the topic.

245

The chair asks the students of the PC if they took the course. No student of the PC has taken
this course. Manthey says that there are many courses in the curriculum like history and
reflection and such. If we want more room for mathematical courses, this is where we
250 should look.

250

255 Pérez asks if it is a serious course. The M-coordinator replies that it is serious. Pérez says that he looked at the material, and he disagrees. Van der Veer also thinks it is a serious course. The M-coordinator says that we should not doubt the quality of this course as the teacher is an expert in his area. The chair agrees with Manthey that there are several courses that don't have a compelling need to be in the mathematics curriculum. The M-coordinator says that in the last accreditation, there was no comment about this course. The chair says that the PC might formulate an opinion if they disagree. We can have a valid point if we are concerned with the quality of the curriculum. If we think a substantial course
260 should come earlier, we should say that.

7. AOB / Questions before closing the meeting

Low showup rate in tutorials

265 The chair asks if the PC could brainstorm on possible solutions. The chair suggests that lecturers could demand attendance. Manthey thinks we should not go to mandatory attendance. Pérez thinks that students should be mature enough to decide which sessions to attend. However, we could give the students specific incentives to attend tutorials. We can assign problems in a week, and grade them in the tutorial. We give them feedback on their
270 answers. The chair adds that the teachers could use self-assessment sheets, on which the students must tick the problems which they could solve. They hand in the sheets, and then from the people who indicated that they could solve the question, one student is picked and has to present the problem on the blackboard. The students are strongly incentivised to not tick something they could not solve, as they could be asked to present it and all problems
275 marked solved on the current self-assessment sheet would then be stricken. Furthermore, the students also learn a soft skill, namely presenting a mathematical solution, in the presence of an actual expert. Over the module, there should be a total number of problems that should be ticked. This would make tutorials effectively mandatory. Pérez agrees. Manthey also says that such a proposal would not be in contradiction to his opposition to
280 mandatory attendance, since it enforces this attendance in a meaningful manner.

The chair asks what the students think. Boon says that there might not be time to prepare after the lecture. It is a good idea, but it needs to be planned well. Pérez thinks that a material shift of for example a week could solve this. The chair thinks this would be a real
285 structural improvement in teaching and is indeed the traditional and time-tested way to hold tutorials. The PD adds that in the Analysis, very few students have a habit of asking questions during tutorials and this would improve their activeness in a tutorial. The chair also thinks that students pay more attention if another student is presenting. Boon says that Hoeksma did most of his courses like this and it was fine. The chair says that we can at least
290 bring it to the attention of teachers that they are free to use this method. The chair says that solving a certain number of questions could be mandatory in order to be admitted to the exam. The students and Pérez think it would be better to make these questions result in bonus points instead of exam admission. The chair thinks there should be a minimal

UNIVERSITEIT TWENTE.

DATE: 1 FEBRUARY 2024

OURREF: EEMCS23/BOZ/10962/NL

295 threshold of points the students need. The PD addresses the problem that double degree students possibly cannot attend due to double scheduling. Manthey says that we can implement this for normal mathematics students and invent something for the double degree students that fits them.

The chair ends the discussion and says that he will contact all PC-AM members to formulate suggestions on this.

300

Registration of exams

The chair says that there are many systems in place, nothing is connected to anything, and neither registration nor non-registration has a consequence. Students who sign up but do not come, but it does not show up as a failed attempt in Osiris. Lecturers have to make their own system to be able to know the number of exams they need. Are we really fine with it?

305

The PD says that for the bachelor, the number of students for a regular test is somewhat predictable. However, there is no registration for the resit, so this is not so predictable. Teachers have to make a guess. In the bachelor, it is easier to deduce the number. The chair asks the PD if he is saying that in the bachelor there is not a problem. The PD says that that is what has been decided by people higher up. The chair suggests pointing this out to the person who made this decision. The PD says that for the bachelor, there is not really a problem. Boon adds that the university has a sustainability plan. Overprinting of exams is not exactly sustainable. The PD says that the main problem is the master courses. Students can register but they don't de-register. Manthey says that as a teacher you want to be on the safe side. Room-wise it is not an extremely big problem. Just knowing how many students you can approximately expect, is very useful. The chair says it would also save money if we did not use systems that are useless anyway.

310

315

320

The PD says that registration gives a student access to Canvas, and groups can be formed. A list of participants is something that we want. The chair would like that a no-show will be registered as a fail, as an incentive to deregister for a course. The PD says that on your transcript, failed exams do not show. This is a Dutch regulation.

325

The PD said that even to change the date by which the registration must have taken place was claimed by the technical staff to require 400 man-hours. The chair asks if we, as technical people, seriously accept such a preposterous statement. The PD says that more people raised a question here, but that the vice dean did not enforce this idea.

330

The chair says we should all think about it and discuss ideas in the next meeting.

8. Closure

The chairman closes the meeting at 17.28.

335

Next meeting: 16 January 2023

UNIVERSITEIT TWENTE.

DATE: 1 FEBRUARY 2024
OURREF: EEMCS23/BOZ/10962/NL

Nr	Description	Meeting	Responsible
481	Inform students about Jupyter Lab.	13/06/2023	PD
482	Communicate PC decision on how to appoint new members to the vice-dean of education	21/11/2023	Chairman
483	Collect suggestions from members of PC-AM concerning tutorial design that will engage students and produces best learning results	21/11/2023	Chairman
484	Communicate to the coordinator of Module 5 that students complained that there was no module introduction and ask for their plan for next year.	21/11/2023	Chairman
485	Contact all PC-AM members for suggestions on better tutorials and communicate a synthesis of the suggestions for further discussion.	21/11/2023	Chairman