

Assessment report  
Limited Framework Programme Assessment

**Master Systems and Control**

Eindhoven University of Technology

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## 1. Executive summary

In this executive summary, the panel presents the main considerations which led to the assessment of the quality of the Master Systems and Control programme of Eindhoven University of Technology, which has been assessed according to the standards of the limited framework, as laid down in the NVAO Assessment framework for the higher education accreditation system of the Netherlands, as published on 20 December 2016 (Staatscourant nr. 69458).

The panel is positive about the cooperation of the Master Systems and Control programmes of the three Dutch Universities of Technology, since this cooperation may be beneficial for the contents of all three programmes.

The Eindhoven programme is regarded by the panel to be adequately organised and managed.

The programme objectives are very appropriate descriptions of the systems and control domain and very adequately delineate the goals about the students' knowledge and skills at completion of the programme. The panel is pleased to note the objectives meet international standards, as exemplified by the correspondence of the objectives with the International Federation of Automatic Control (IFAC) report. The panel welcomes the benchmark study conducted by the three Dutch Master Systems and Control programmes and observes these programmes to be aligned with well-respected programmes in this domain abroad.

The programme has intensive relations with a substantial number of companies in the region and, therefore, is appropriately aligned with trends and developments in this professional field. The panel suggests to put these relations more strongly forward in the communication, as this may be seen to be an asset to the programme.

The intended learning outcomes of the programme are adequate operationalisations of the programme objectives and meet the master level. The panel advises to broaden the intended learning outcomes with aspects of signal processing, communication and computation.

The panel is very appreciative of the curriculum. The contents of the courses are relevant, the level of the courses is distinctly very high, and the curriculum coherence is up to standard. As the total study load of the core courses is somewhat limited, the panel suggests to extend the core curriculum. The panel advises to ensure all students being introduced to the multidisciplinary dimensions of the systems and control domain. Although students can spend their internships abroad and can do their graduation projects in industry, the panel suggests to promote students taking courses abroad and to offer more internships in industry.

The panel regards the lecturers to be very good researchers in this domain. The panel welcomes the cooperation of the Master Systems and Control programmes of the three Universities of Technology in the Dutch Institute of Systems and Control. The panel considers the lecturers to be good teachers, as the proportion of lecturers being BKO-certified or having been granted exemptions on the basis of long teaching track records show.

The admission requirements and procedures are up to standard. The panel is positive about the pre-master programme, enabling students to gain access to the programme. The panel suggests to rethink the 5 EC of homologation courses.

The panel appreciates the study methods and the system of study guidance of the programme. The number of hours of face-to-face education is adequate. The panel advises to spread the study load more evenly, especially in the first quarter, as the study load in this quarter is experienced by students to be too demanding. The panel also suggests to improve the students-to-staff ratio.

The panel is positive about the material facilities and the laboratories, provided to the students of the programme.

The examinations and assessments rules and regulations of the programme are up to standard. In addition, the panel approves of the responsibilities and the composition of the Examination Committee.

The panel regards the examination methods to be adequate, having seen these to meet the course goals and contents. The panel is positive about the multiple examinations scheduled in most courses.

The programme ensures the research orientation of industry-related graduation projects. The assessment process of the graduation projects is very appropriate, leading to reliable assessments.

The programme has taken adequate measures to promote the validity of the examinations and the reliability of the assessments.

The examinations of the courses, the panel studied, are up to standard.

The grades given to the graduation projects by the programme examiners are fully endorsed by the panel. The graduation projects are good combinations of theoretical and more practical work. The projects exhibited good quality regarding the subjects investigated and the contents and scientific structure.

The panel considers the graduates of the programme to be very knowledgeable about and very skilled in this domain and to be very well prepared for the labour market. The career prospects of the graduates are very good, if not excellent. The panel noted the graduates to be able to apply their knowledge and skills both in commercial companies or in research institutes.

The panel which conducted the assessment of the Master Systems and Control programme of Eindhoven University of Technology assesses this programme to meet the standards of the limited framework, as laid down in the NVAO Assessment framework for the higher education accreditation system of the Netherlands, judging the programme to be good. Therefore, the panel recommends NVAO to accredit this programme.

Rotterdam, 28 September 2018

Prof. dr. A.J. van der Schaft  
(panel chair)

dr. W. Vercouteren  
(panel secretary)

## 2. Assessment process

The evaluation agency Certiked VBI received the request by Eindhoven University of Technology to manage the limited framework programme assessment process for the Master Systems and Control programme of this University. This objective of the programme assessment process was to assess whether the programme would conform to the standards of the limited framework, as laid down in the NVAO Assessment framework for the higher education accreditation system of the Netherlands, as published on 20 December 2016 (Staatscourant nr. 69458).

Management of the programmes in the assessment cluster WO 3TU Systems and Control convened to discuss the composition of the assessment panel and to draft the list of candidates.

Having conferred with management of the Eindhoven University of Technology programme, Certiked invited candidate panel members to sit on the assessment panel. The panel members agreed to do so. The panel composition was as follows:

- Prof. dr. A.J. van der Schaft, professor in Mathematics, Johann Bernoulli Institute for Mathematics and Computer Science, University of Groningen (panel chair).
- Prof. dr.-ing. J. Lunze, professor and head of Institute of Automation and Process Control, Ruhr-University Bochum, Germany (panel member).
- Prof. dr. P.R.J. Simons, professor emeritus and former director of IVLOS Institute of Education, Utrecht University (panel member).
- Dr. ir. R.H. Gielen, software architect, IGT Systems, Philips Healthcare (panel member).
- R. Werink BSc, student Master Systems and Control, University of Twente (student member).

On behalf of Certiked, drs. W. Vercouteren served as the process coordinator and secretary in the assessment process.

All panel members and the secretary confirmed in writing being impartial with regard to the programme to be assessed and observing the rules of confidentiality. Having obtained the authorisation by the University, Certiked requested the approval of NVAO of the proposed panel to conduct the assessment. NVAO have given their approval.

To prepare the assessment process, the process coordinator convened with management of the programme to discuss the outline of the self-assessment report, the subjects to be addressed in this report and the site visit schedule. In addition, the planning of the activities in preparation of the site visit were discussed. In the course of the process preparing for the site visit, programme management and the Certiked process coordinator regularly had contact to fine-tune the process. The activities prior to the site visit have been performed as planned. Programme management approved of the site visit schedule.

Well in advance of the site visit date, programme management sent the list of final projects of graduates of the programme of the most recent years. Acting on behalf of the assessment panel, the process coordinator selected 15 final projects. The grade distribution in the selection was ensured to conform to the grade distribution in the list, sent by programme management. Additional criteria have been taken into account, if these had been found to be relevant for the programme.

The panel chair and the panel members were sent the self-assessment report of the programme, including appendices. In the self-assessment report, the student chapter was included. In addition, the expert panel members were forwarded a number of final projects of the programme graduates, these final projects being part of the selection made by the process coordinator.

A number of weeks before the site visit date, the assessment panel chair and the process coordinator met to discuss the self-assessment report provided by programme management, the procedures regarding the assessment process and the site visit schedule. In this meeting, the profile of panel chairs of NVAO was discussed as well. The panel chair was informed about the competencies, listed in the profile. Documents pertaining to a number of these competencies were presented to the panel chair. The meeting between the panel chair and the process coordinator served as the briefing for panel chairs, as meant in the NVAO profile of panel chairs.

Prior to the date of the site visit, all panel members sent in their preliminary findings, based on the self-assessment report and the final projects studied, and a number of questions to be put to the programme representatives on the day of the site visit. The panel secretary summarised this information, compiling a list of questions, which served as a starting point for the discussions with the programme representatives during the site visit.

Shortly before the site visit date, the complete panel met to go over the preliminary findings concerning the quality of the programme. During this preliminary meeting, the preliminary findings of the panel members, including those about the final projects were discussed. The procedures to be adopted during the site visit, including the questions to be put to the programme representatives on the basis of the list compiled, were discussed as well.

On 13 June 2018, the panel conducted a site visit on the Eindhoven University of Technology campus. The site visit schedule was in accordance with the schedule as planned. In a number of separate sessions, panel members were given the opportunity to meet with Faculty Board representatives, programme management, Examination Committee representatives, lecturers and final projects examiners, students, and alumni and professional field representatives. In addition, the panel was given a tour around the programme facilities and laboratories.

In a closed session at the end of the site visit, the panel considered every one of the findings, weighed the considerations and arrived at conclusions with regard to the quality of the programme. At the end of the site visit, the panel chair presented a broad outline of the considerations and conclusions to programme representatives.

Clearly separated from the process of the programme assessment, the assessment panel members and programme representatives met to conduct the development dialogue, with the objective to discuss future developments of the programme.

The assessment draft report was finalised by the secretary, having taken into account the findings and considerations of the panel. The draft report was sent to the panel members, who studied it and made a number of changes. Thereupon, the secretary edited the final report. This report was presented to programme management to be corrected for factual inaccuracies. Programme management were given two weeks to respond. Having been corrected for these factual inaccuracies, the Certikend bureau sent the report to the University Board to accompany their request for re-accreditation of this programme.

### **3. Programme administrative information**

Name programme in CROHO: M Systems and Control  
Orientation, level programme: Academic Master  
Grade: MSc  
Number of credits: 120 EC  
Specialisations: N.A.  
Location: Eindhoven  
Mode of study: Full-time (language of instruction: English)  
Registration in CROHO: 21PG-60359

Name of institution: Eindhoven University of Technology  
Status of institution: Government-funded University  
Institution's quality assurance: Approved

## 4. Findings, considerations and assessments per standard

### 4.1 Standard 1: Intended learning outcomes

The intended learning outcomes tie in with the level and orientation of the programme; they are geared to the expectations of the professional field, the discipline, and international requirements.

#### *Findings*

The Master Systems and Control programme is the result of the collaboration between 4TU, the Dutch Universities of Technology. Although the Master Systems and Control programmes of Eindhoven University of Technology, Delft University of Technology and University of Twente now differ, the programmes share a number of features, such as common core courses and lectures to be taken by students of all three Universities. The Universities maintain close contacts and meet regularly to discuss the programmes.

The Master Systems and Control programme of Eindhoven University of Technology is the collaboration of two departments, being the Departments of Mechanical Engineering and of Electrical Engineering, the first mentioned department being the coordinating department. The programme director with the assistance of the programme coordinator manages the programme on a day-to-day basis. Four research groups are involved in the programme and provide content knowledge and research expertise. These research groups are part of the two collaborating Departments. On the Education Committee, consisting of lecturers and students and advising programme management on the programme quality, sit members of each of the departments. The Examination Committee for the programme has the authority to supervise the examinations and assessments of the programme.

The systems and control domain studies dynamic systems and the optimisation of their performance through modelling, sensor and actuator selection, data analysis and control design. The objectives of the programme are, therefore, to educate students to be able to scientifically analyse, model, simulate, design and implement methods and tools to control dynamic systems and to apply this knowledge and these insights in the fields of, among others, mechanical engineering, electrical engineering and applied physics. As the fundamental and generic systems and control theories and concepts may be applied to different application fields, the domain may be considered to be multidisciplinary.

The programme objectives have been derived from a recent report, commissioned by the International Federation of Automatic Control (IFAC) and drafted by the task force of a number of leading experts in this domain to describe the domain. The programmes of the three Universities recently conducted a benchmark study, comparing their programmes to other systems and control master programmes of universities in and outside of Europe. The results of this study show these programmes content-wise to be very much comparable to the Dutch programmes.

No industry advisory board has been installed for this programme. Through internships, research collaboration or graduation projects the programme maintains relations with an extended range of companies in the Eindhoven Brainport region.

The programme objectives have been translated into the intended learning outcomes of the programme. These intended learning outcomes specify, among others, in-depth scientific and technical knowledge of and insights in the systems and control domain, in-depth knowledge of engineering sciences and mathematics, skills to address technological subjects and problems in this domain scientifically and systematically, collaboration and communication skills, also in multidisciplinary contexts and ethical and societal awareness.

Programme management showed the intended learning outcomes of the programme to be in line with the Meijers' Criteria, demonstrating these to meet the master level.

*Considerations*

The panel is positive about the cooperation of the Master Systems and Control programmes of the three Dutch Universities of Technology, since this cooperation may be beneficial for the contents of all three programmes.

The Eindhoven University of Technology programme is regarded by the panel to be adequately organised and managed.

The panel welcomes the programme objectives, as these give a very appropriate description of the systems and control domain and very adequately delineate the goals regarding the knowledge and skills of students at completion of the programme.

In addition, the panel is pleased to note the programme objectives meet international standards, as exemplified by the correspondence of the objectives with the International Federation of Automatic Control (IFAC) report. The panel welcomes the benchmark study conducted by the three Dutch Master Systems and Control programmes and observes these programmes to be aligned with well-respected programmes in this domain abroad.

As the programme has intensive relations with a substantial number of companies in the region, the programme is appropriately aligned with trends and developments in this professional field. The panel suggests to put these relations more strongly forward in the communication, as this may be seen to be an asset to the programme.

The panel regards the intended learning outcomes of the programme elaborate and well-phrased, being the adequate operationalisations of the programme objectives and meeting the master programme level. The panel advises to broaden the intended learning outcomes with aspects of signal processing, communication and computation.

*Assessment of this standard*

These considerations have led the assessment panel to assess standard 1, Intended learning outcomes, to be good.

## 4.2 Standard 2: Teaching-learning environment

The curriculum, the teaching-learning environment and the quality of the teaching staff enable the incoming students to achieve the intended learning outcomes.

### *Findings*

The number of incoming students fluctuated in the last years, being at the minimum of 18 students in 2012 and at the maximum of 44 students in 2014. The average influx was 29 students over the years 2012 to 2015. In 2016/2017, the last year fully reported, the influx was 55 students. The number of students for a viable programme is set at 40 students. Of the incoming students, about 30 % to 40 % are from abroad. The proportion of students with diplomas from higher vocational institutes is very limited.

The curriculum of the programme has a study load of 120 EC and takes two years to complete. The curriculum is organised in line the University-wide Graduate School design principles. Programme management presented a table to show the curriculum to meet the intended learning outcomes. The curriculum consists of six core courses (25 EC). The core courses cover the fundamental knowledge and skills components of the systems and control domain, being, among others, control design, modelling, sensor and actuator selection and data analysis. One of these courses, the *Systems and Control Integration Project* allows students to work in groups on actually controlling a laboratory set-up. These groups tend to be mixed, being composed of students with different backgrounds. In addition, students take 20 EC of specialisation courses. They may select courses from a rather extensive list and tailor these specialisation courses to one of the themes, addressed in the programmes. These themes are fundamentals, mechatronics and robotics, control for automotive, process and energy, and cyber physical. Students may choose 15 EC of free electives or homologation courses. These electives may be freely selected. The homologation courses allow students to remedy any deficiencies they may have. The core courses, specialisation courses and free electives are scheduled in the first year of the programme. In the second year of the curriculum, students take the internship (15 EC) and the graduation project (45 EC). The internship is meant to prepare for the graduation project and are for the most part taken at universities abroad. Students having had their prior education at higher vocational institutes are obliged to take research internships at universities. Students tend not to take courses abroad. The graduation projects are for the most part done within or in collaboration with companies, allowing students to become acquainted with the professional field. Graduation projects are defined by scientific research questions or design problems.

As has been indicated, four research groups are involved in the programme. Lecturers participating in the programme are experienced researchers, working on current research subjects in the field. The Master Systems and Control programmes of the three Universities of Technology work on research together in the Dutch Institute of Systems and Control (DISC). The lecturers of this programme refer to their research in the lectures. In addition, journal articles and research papers are used as course material. A total of eight lecturers lecture in the core courses. They all have PhDs. Four of them have obtained the BKO-certificate, testifying to their educational capabilities. Another three of them are lecturers with extended teaching track records. For the Mechanical Engineering Department as a whole, the proportion of lecturers being BKO-certified is 75 %. Students indicated being very pleased with the lecturers' capabilities, mentioning the lecturers' in-depth knowledge of the field in particular.

The Admission Committee of the programme decides on the admission of students. Students having Bachelors Mechanical Engineering, Electrical Engineering, Applied Mathematics, Applied Physics or Aerospace Engineering of one of the three Dutch Universities of Technology are admitted to the programme unconditionally. Candidates with other bachelor degrees are admitted on the basis of the similarities of their programmes with the bachelor programmes mentioned. These students have to submit a letter of motivation and have to report their grade point average. Students having more than 30 EC deficiencies, should first complete one of the bachelor programmes. Students with deficiencies more than 15 EC but less or equal to 30 EC should complete the pre-master programme (30 EC). Students with bachelor degrees in this domain from higher vocational institutes have to complete the pre-master programme as well. Students with deficiencies equal or less than 15 EC, may start in the programme, remedying their deficiencies with homologation courses to be approved by the Examination Committee. Most of these students take the 5 EC homologation courses offered by the programme. Students entering the programme, are registered at the Delft University of Technology and the University of Twente Master Systems and Control programmes as well.

The study methods adopted in the programme include lectures, tutorials, practical training sessions, guided self-study and projects. The number of hours of face-to-face education is about 12.5 hours per week for the core courses. In a number of courses, students sit in class with students from other programmes. Students may take courses at the Master Systems and Control programme of the other Universities of Technology. All students are introduced to the programme in the so-called Master Kick-Off, before the actual start of the programme. In the first six months, students are guided by their personal mentor, being a lecturer in the research group students have chosen. The mentor advises students on specialisation courses to be taken in preparation of their graduation project. For study planning issues and study-related problems, students may turn to the academic advisors of the Department of Mechanical Engineering. Students experience the programme to be quite demanding, especially in the first quarter. The student-to-staff ratio for the Department of Mechanical Engineering as a whole has become more unfavourable over the years, going from 17.2 in 2011 to 22.8 in 2016. As a consequence, students complain lecturers not to be easily contacted. Programme management is in the process of recruiting additional staff. The student success rates indicate Dutch students completing the programme on average in 32 months and the foreign students in 26 months. The average proportion of students dropping out of the programme is about 13 % (figures for 2011 to 2014).

### *Considerations*

The panel is very appreciative of the curriculum. The contents of the courses are relevant and the level of the courses is distinctly very high. The panel considers the curriculum coherence to be up to standard, being composed of core courses, specialisation courses, the internship and the graduation project. As the study load of the core courses is somewhat limited, the panel advises to extend the core curriculum. Though multidisciplinary elements may be discussed in courses, students being taught the multidisciplinary dimensions of the systems and control domain is not enforced. They may remain within their own discipline. The panel advises to ensure all students being introduced to the multidisciplinary dimensions of the systems and control domain. Although the panel appreciates that students can spend their internships abroad and can do their graduation projects in industry, the panel suggests to promote students taking courses abroad and to offer more internships in industry.

The panel regards the lecturers to be very good researchers in this domain. The lecturers refer to their research in the classes. The panel welcomes the cooperation of the Master Systems and Control programmes in the DISC Research School. The panel considers the lecturers to be good teachers, as the proportion of lecturers being BKO-certified or having been granted exemptions on the basis of long teaching track records show. The panel notes students to be very positive about the lecturers.

The admission requirements and the admission procedures are up to standard, admitting students who may be considered to have a fair chance of completing the programme. The panel is positive about the pre-master programme, enabling students to gain access to the programme. The panel suggests to rethink the 5 EC of homologation courses, as scheduling these courses leaves less room for more advanced courses.

The panel appreciates the study methods and the system of study guidance by the mentors and the study advisors. The number of hours of face-to-face education is adequate. The panel advises to spread the study load more evenly, especially in the first quarter, as the study load in this quarter is experienced by students as being too demanding. In addition, the panel suggests to improve the students-to-staff ratio.

The panel is positive about the material facilities and the laboratories, provided to the students of the programme.

*Assessment of this standard*

These considerations have led the assessment panel to assess standard 2, Teaching-learning environment, to be good.

### 4.3 Standard 3: Student assessment

The programme has an adequate system of student assessment in place.

#### *Findings*

The programme examination and assessment rules and regulations comply with the Eindhoven University of Technology Examination Framework and the Department of Mechanical Engineering Assessment Policy. The Examination Committee for this and other programmes of the Department has the responsibilities to monitor the examinations and assessments quality. The chair of the Examination Committee is an external to the Department with expertise in this field.

The examination methods adopted in the programme are written examinations, individual assignments, group assignments, technical reports and presentations. The examination methods are selected on the basis of the course contents and course goals. In most of the courses, multiple examinations are scheduled, allowing to test students' performances in more than one way. In case of the *Integration Project* course, an individual examination complements the group assignment. For the internship assignments, adequate external supervision is ensured. The University supervisor grades the internship, having heard the advise of the external supervisor.

As has been indicated, the graduation projects are mostly done in (cooperation with) industry. Projects in industry are only approved, if they are conducted at the sites of trustworthy industrial partners. The company supervisors' competencies are checked by the Examination Committee. The University supervisors have regular meetings with the students. On a day-to-day basis, PhD students may be involved in the supervision. They keep in regular contact with the company supervisors. The goals of the graduation projects have to be approved by the research group involved beforehand to ensure the research orientation and research dimensions of the projects. The projects are assessed by the Graduation Committee, consisting of at least three faculty members, being chaired by a full or associate professor from the research group involved and having one member coming from another research group. The Graduation Committee assesses the written report, the presentation and the oral defence, using scoring forms with a number of relevant assessment criteria.

The Examination Committee appoints the examiners. Examiners present examination to their colleagues for peer review. On behalf of the Examination Committee, the Assessment Committee regularly checks samples of examinations of core courses against the course goals. In addition, samples of graduation projects are reviewed by this committee, to verify procedures and to check grades. The Committee will check internships from the coming academic year onwards.

Fraud and plagiarism regulations are in place and are rather detailed. Students are made aware of the seriousness of fraud and plagiarism offences. A number of cases have been dealt by the Examination Committee.

#### *Considerations*

The panel considers the examinations and assessments rules and regulations of the programme to be up to standard, complying with University and Department policy statements and frameworks. In addition, the panel approves of the responsibilities and the composition of the Examination Committee.

The panel regards the examination methods to be adequate, having seen these to meet the course goals and course contents. The panel is positive about the multiple examinations scheduled in most courses.

In the panel's view, the programme ensures the research orientation of industry-related graduation projects. The panel welcomes the thorough selection of companies for these projects and the monitoring of the industry-related projects by University lecturers. The panel is also very appreciative of the rules governing the composition of the Graduation Committees for the assessment of the graduation projects. These rules allow for scrutiny in the assessments. They also allow for balancing the assessments across research groups, since members from various research groups participate. The assessment process of the graduation projects itself is very appropriate, leading to reliable assessments.

The programme has taken adequate measures to promote the validity of the examinations and the reliability of the assessments. Examinations are peer-reviewed among examiners. The Assessment Committee is in the panel's view very active in monitoring the examinations and graduation projects quality.

*Assessment of this standard*

The considerations have led the assessment panel to assess standard 3, Student assessment, to be good.

#### 4.4 Standard 4: Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

##### *Findings*

The panel reviewed the examinations of a number of courses in the programme.

The panel also studied fifteen graduation projects of graduates of the programme of the last few years. The average grade of these projects was 7.6.

Quite recently, programme management conducted a survey among graduates of the programme. These graduates expressed being very content about their preparation for the labour market. The graduates responding to the survey, are either employed by companies (about 50 %) or work at universities or research institutes (50 %).

Programme graduates may continue their studies as PhD students within the framework of the Dutch Institute of Systems and Control (DISC).

Programme management recently conducted a survey among employers of programme graduates. These employers expressed experiencing the graduates of this programme to be well educated, definitely meeting the employers' expectations and being knowledgeable about and skilful in the systems and control domain.

##### *Considerations*

The examinations of the courses, the panel studied, are up to standard.

The grades given to the graduation projects by the programme examiners are fully endorsed by the panel. The graduation projects are good combinations of theoretical and more practical work. The projects exhibited good quality regarding the subjects investigated and the contents and scientific structure.

The panel considers the graduates of the programme to be very knowledgeable about and very skilled in this domain and to be very well prepared for the labour market. The career prospects of the graduates are very good, if not excellent. The panel noted the graduates to have positions both in commercial companies or in research institutes.

##### *Assessment of this standard*

The considerations have led the assessment panel to assess standard 4, Achieved learning outcomes, to be good.

## 5. Overview of assessments

Standard	Assessment
Standard 1. Intended learning outcomes	Good
Standard 2: Teaching-learning environment	Good
Standard 3: Student assessment	Good
Standard 4: Achieved learning outcomes	Good
Programme	Good

## 6. Recommendations

In this report, a number of recommendations by the panel have been listed. For the sake of clarity, these have been brought together below. These panel recommendations are the following.

- To broaden the intended learning outcomes with aspects of signal processing, communication and computation.
- To put the relations with organisations in the professional field more strongly forward in the communication about the programme.
- To extend the core curriculum, now being 25 EC.
- To ensure all students being introduced to the multidisciplinary dimensions of the systems and control domain.
- To promote students taking courses abroad.
- To offer more internships in industry.
- To rethink the homologation courses, as scheduling these courses leaves less room for more advanced courses.
- To spread the study load more evenly, especially in the first quarter, as the study load in this quarter is experienced by students as being too demanding.
- To improve the students-to-staff ratio.