Bachelor in Electrical and Electronic Engineering

Electrical and Electronic Engineering is a 4 years bachelor course intended for the professional industrial field of Engineering. The programme is designed according to the international requirements of the credit transfer system. The Dublin descriptors will recognise the level of education, and show us 5 international competences:

Knowledge and Understanding
Applying Knowledge
Making Judgements
Communication
Learning Skills

All these competences are represented in the course content.

Student as manager of his own development

The Dutch education system is based on a pre-active student. Professors are available to help students for their own educational development. The professors will coach the students. Students can use the professional experience of professors. The curriculum consist of tree main topics: theoretical courses, practical (lab) courses and projects.

Graduation

As a bachelor student you graduate as an bachelor of applied engineering (Official degree “Beng”).

You can work in the field of engineering as a hardware designer, software developer, technical advisor or group-leader.

The work field of an electrical electronic engineer is wide; Control and measurement systems, Security systems, Telecommunications, Energy and automation, consumer electronics, medical electronics, transport systems and so on.

At this moment the work environment is good to find a job in the professional industry.

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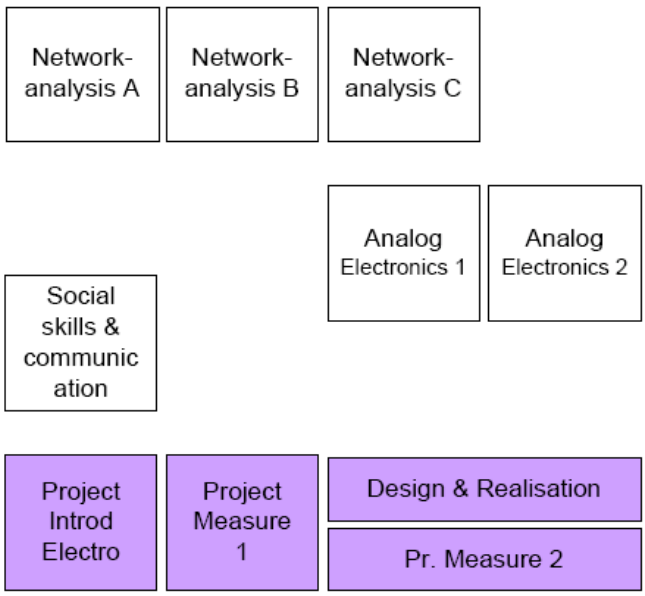
Program overview:
First year:

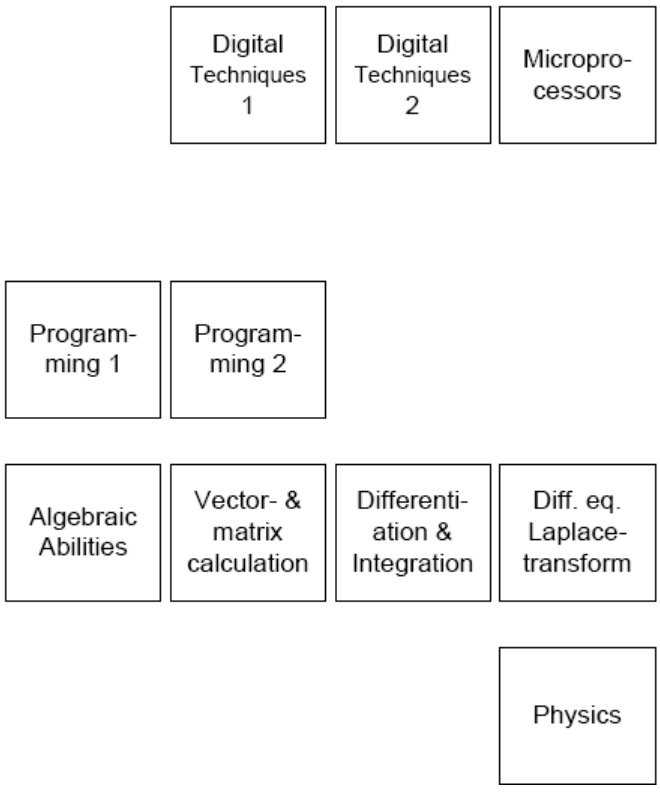


The base of every engineering education is mathematics and physics. From technical point of view you learn all about, network analysis, analogue electronics, digital electronics, programming and microprocessors. These courses contain as well as theoretical parts as practical lab-work.

Applying the knowledge is done in the projects; introduction of electronics, project measurement 1 and 2, design and realisation. The project work needs some special skills, the social skills witch will be trained in the course. Beside that there is a special subject on social skills and communication.

In total you see here the complete first years programme, which contains 60 European credits.

After the first year you get a propedeuse diploma, and you can start the second year.



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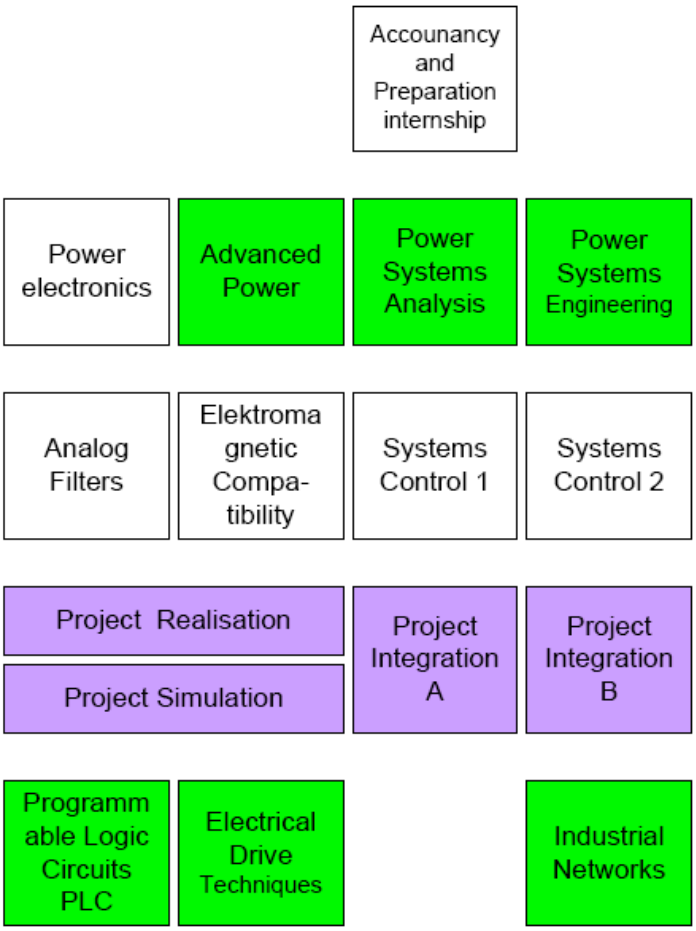
Second year:



While the field of electrical and electronic engineering is very wide, the student can specialise in the 2nd year all projects (purple) and basic courses (white) should be done by every student, beside that students can choose one of the two specialisation;

Electrical Power and Automation EPA (green in the curriculum);

This specialisation focuses on:

High power, high voltage and large scale automation.

Or

Electrical Information Engineering EIE (orange in the curriculum);

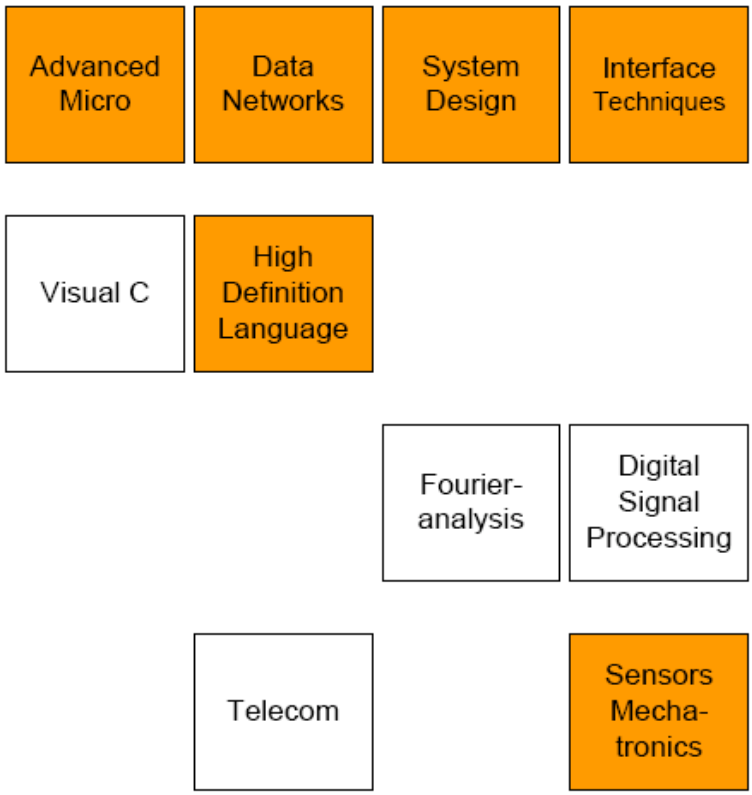
This specialisation focuses on:

Micro electronic intelligence, signal control and analysis.

The second year is an in depth training in the field of electronics and also in project work.

All the literature is in English, and the curriculum is build with help of the companies. Changes of the curriculum will be done on advise of the work field.

The 2nd year is a real preparation, so the students will be ready to do an internship on their own.



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Third year:

Internship

First contact in the practical field

20 weeks in company

Student finds company

Assingment by company

Company coach
&
University coach

This is a practical half year; internship. For a half year the student is in company, he has got a company coach and a university coach.

The company experiences are very important;
How to integrate theoretical and practical work.
How to co-operate with real colleagues.
Working in a multi-disciplinal team.
What type of work fits me.
What field of electronics I am interested in.

Etcetera.

The internship is ended with an internship report and an final presentation at the university, sometimes also at the company.

In the second half of the third year the student will discover in-depth knowledge of his specialisation;

Some topics of the specialisation are:

Electrical Power and Automation:

Specialisation
Electrical Power and Automation

Electrical Information Engineering:

Specialisation
Electrical Information Engineering

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Fourth year:

The minor gives the student the opportunity to choose his own development. So it is a elective half year. 4 minors are offered, to develop theoretical skills in depth, or one extra internship is offered to develop some more practical company experience. Even it is possible to do an pre-course for a master course at a technical university.

At the end the student should do his final thesis. In this half year he will prove his bachelor level in company. The student is coached by a university coach and a company coach. At the end the student should meet all the competences of a bachelor of engineering.

The competences to meet are described in short;

Knowledge and understanding
have demonstrated knowledge and understanding in a field of study that builds upon and supersedes their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study

Applying knowledge and understanding
can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study

Making judgements
have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues

Communication
can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences

Learning skills
have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy

If you want to have personal contact, mail to;
Mr Jan Bollen course director, or meet him on msn.

Minor

To be filled in by student

Student can choose one of these subject

Technical Automation

or

Sustainable Energy

or

Technology and Care

or

Electrical Engineering System Project (EESP)

or

Extra internship

Final Thesis

Prove of bachelor level in practical field

20 weeks in company

Student finds company

Assignment by company

Company coach
&
University coach

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