

Bachelor of Electronics-ICT

Pedro Wyna

Thomasmore is a BIG university



- 22000 students
- 2000 employees
- Multiple sites

Thomas More is the largest university of applied sciences in Flanders, offering more than 30 Dutch-taught and a range of **English-taught bachelor degree programmes & postgraduates** in the province of Antwerp.

Next to that, Thomas More offers **exchange programmes** in English, for students from partner universities.

Campus De Nayer – Katelijne Waver

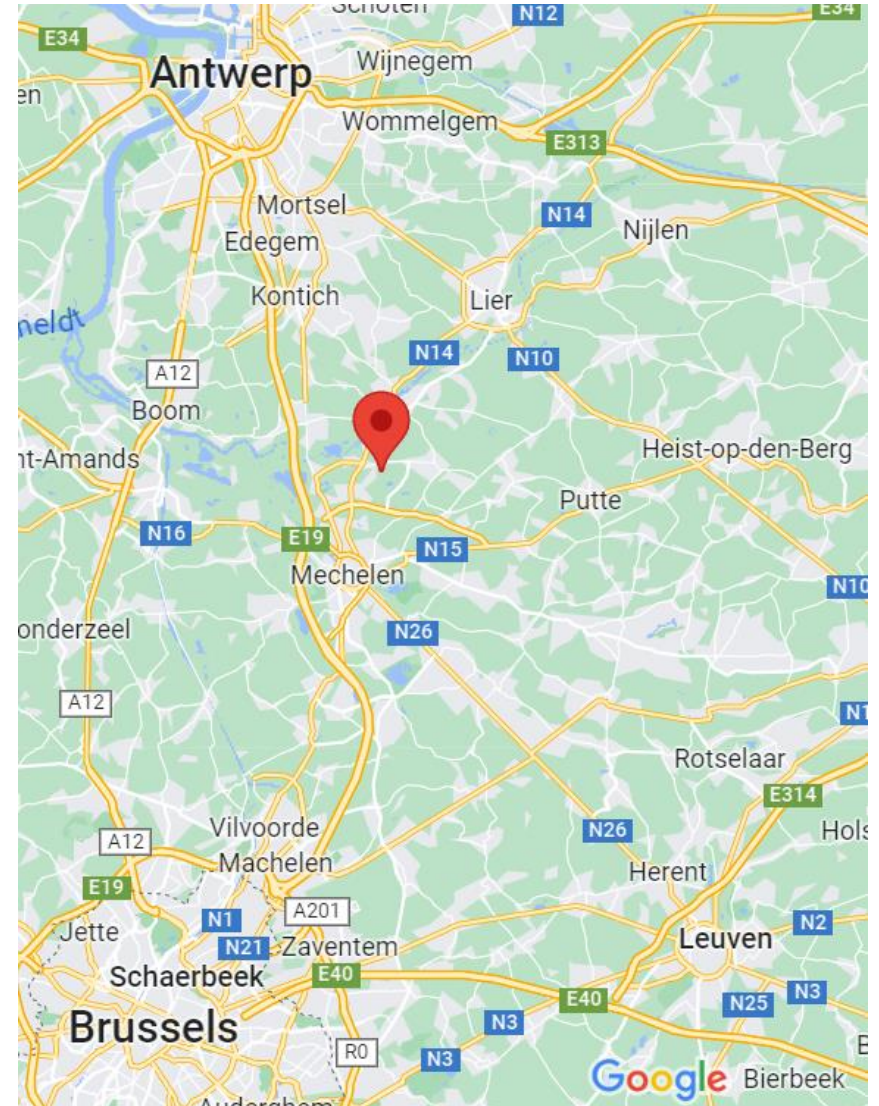
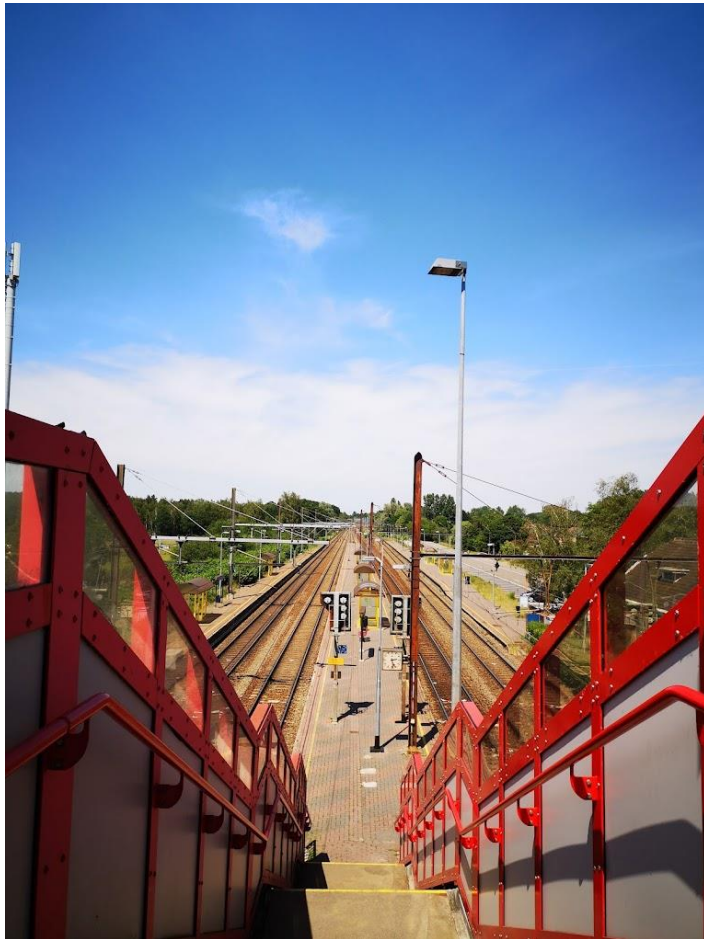
<https://www.thomasmore.be/en/degree-students/elektronics-ict/de-nayer/electronics>



Perfect location with a train station next door

Connections to all major cities nearby:

Brussels,
Antwerp,
Leuven,
Mechelen,
Gent,
Brugge...



University of APPLIED sciences

Preparing for real life in a high tech environment.

One of the few EU universities left teaching Electronics hardware design (quite a contradiction as the world is entirely based on electronic devices and nobody knows what's behind...)

We have our own PCB board manufacturing equipment for fast prototyping

Unique concept “**practice enterprise**” Students learn in 3 steps year by year to design their own product, finalized in the Bachelor project.

A lot of subjects are practice oriented with great lab environments

Walk as you talk...

I am not the right person to give an overall overview of my university...

Too many courses, too many topics, but you have a website for that:

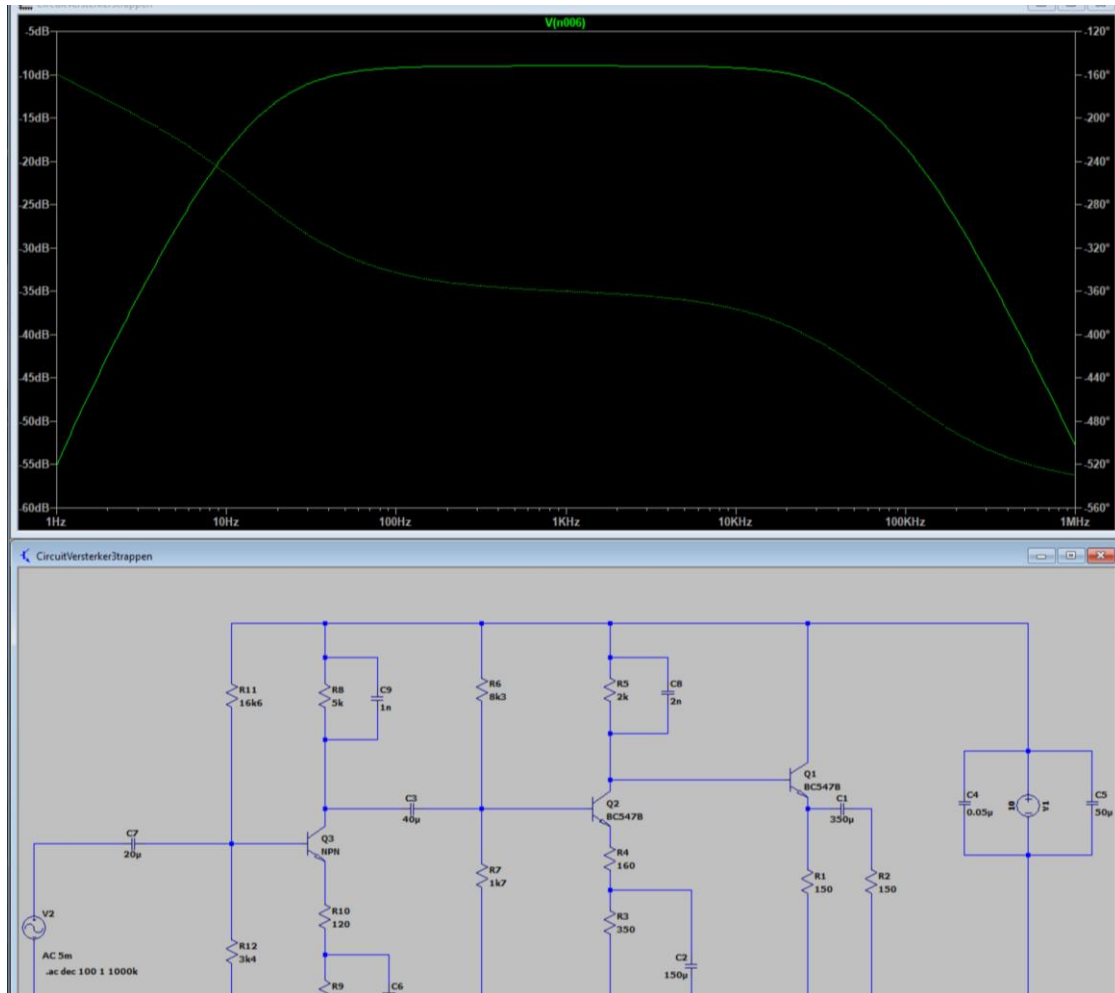
<https://www.thomasmore.be/campussen/campus-de-nayer>

(On the same page you will also find links to other affiliates of Thomasmore.)

But I am definitely **the perfect guy to convince you why you should attend at least one semester at De Nayer** based on some of the subjects I teach there...

Let's go and have a look !!!

Course Electronics 1 – 2 (6+6 ECTS)



Electronics 1 is centered on basic semiconductor design such as switching stages and power supplies.

In **Electronics 2** students learn how to design a three stage transistor or FET amplifier from scratch and realize it on breadboard to measure the real world's performance using high end audio analysers.

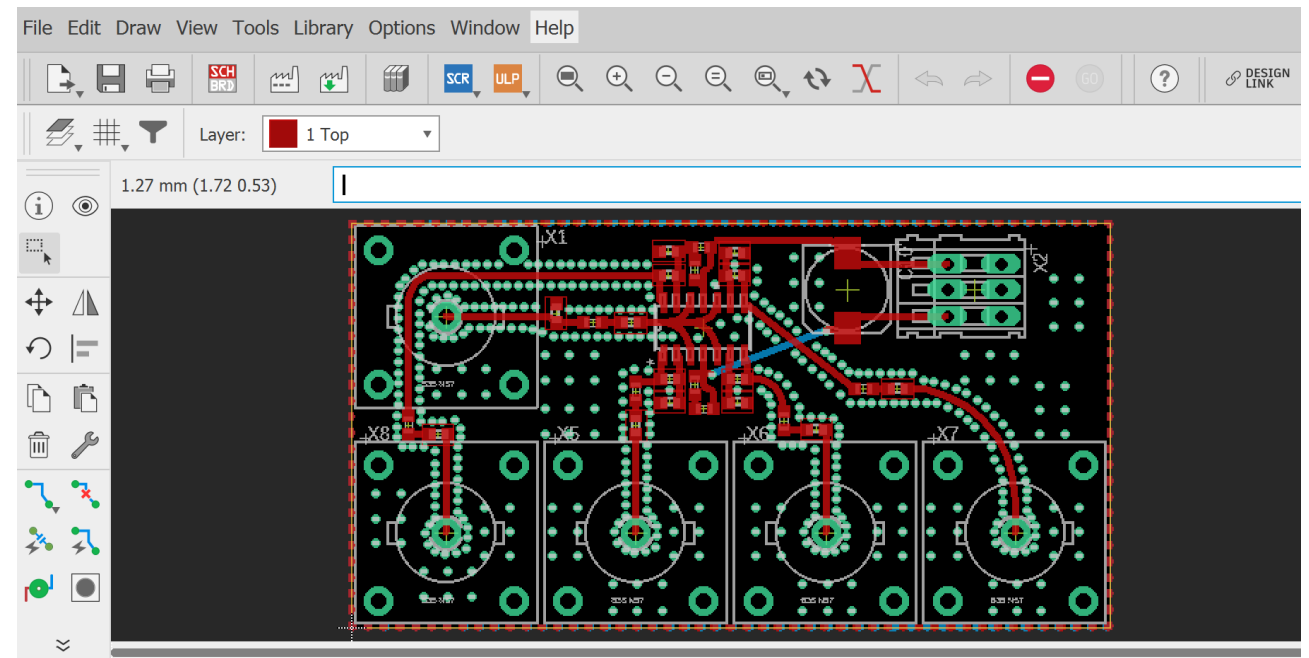
Later in another subject “**advanced PCB design**” they learn how to make professional SMD boards using Altium.

Course Electronics 3 (6 ECTS)

In **electronics 3** no exam but a project to show off the knowledge gathered from the course based exclusively on operational amplifier design.

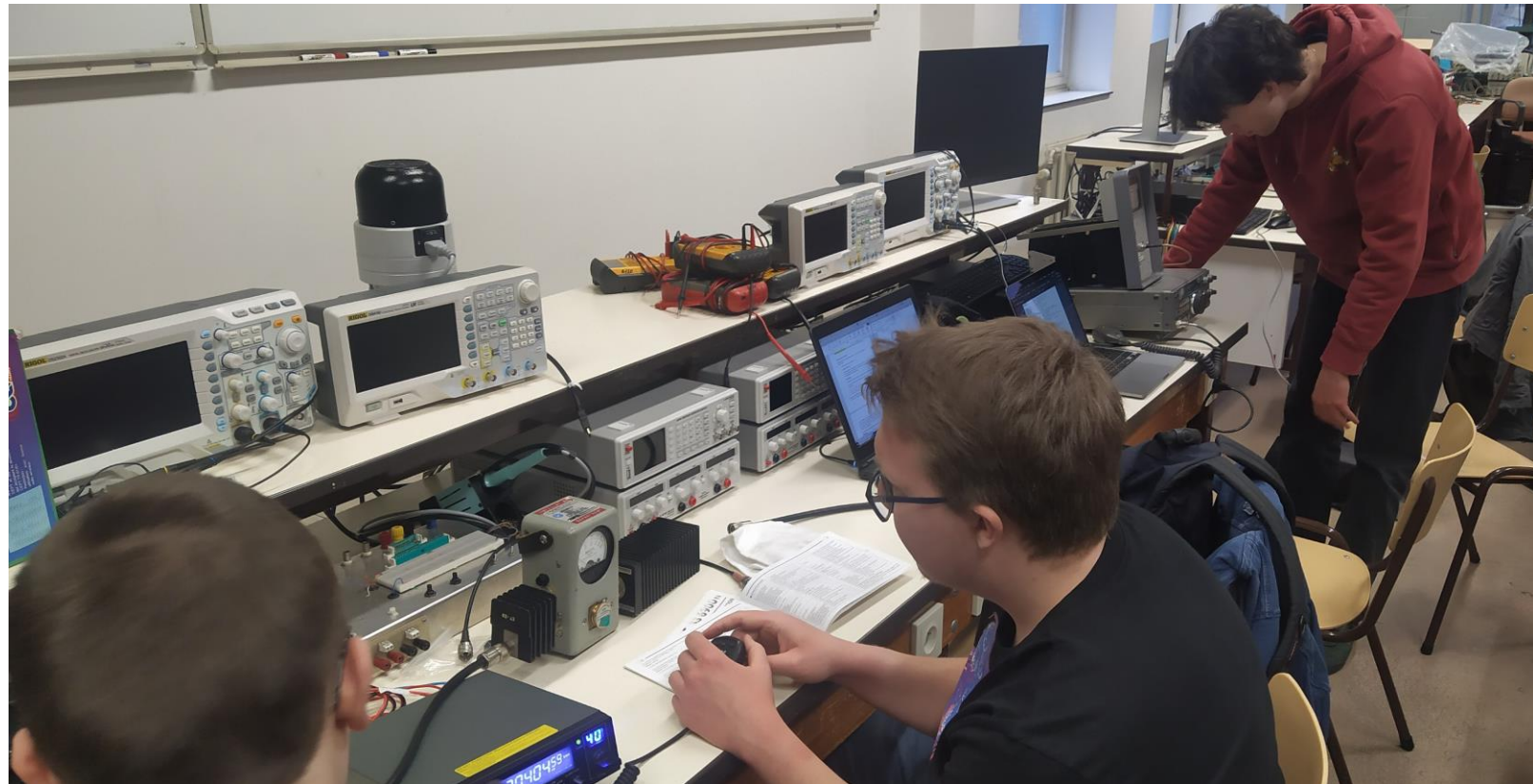
Past projects were a multi-octave audio processor, an antenna distribution amplifier based on current feedback opamps (picture below) and a high end two way active speaker system.

CFB 1 to 4 distribution amplifier
0 – 1000 MHz.



Course Mobile Communications (3 ECTS)

A hands-on course learning to deal with real world radio equipment. Labs to investigate and measure the performance of different communication systems and antennas.



Course Audio and Video systems (6 ECTS)

This course combines study visits to leading companies in the AV sector with in-depth theory training on microphones, speakers and amplifiers followed by labs investigating real world equipment.



Course Audio and Video systems (6 ECTS)

No more “video systems” in 2023 as the world went to IP, but students learn to work with complex systems setting up their own satellite uplinks, downlinks, Cable multiplexes in DVB-C as well as TV transmissions in DVB-T, dealing with high end HD coders and 4k decoders.



Course RF Technology (3 ECTS)

An introduction to design antenna matching devices, power combiners and splitters using both lumped element approach as well as striplines.

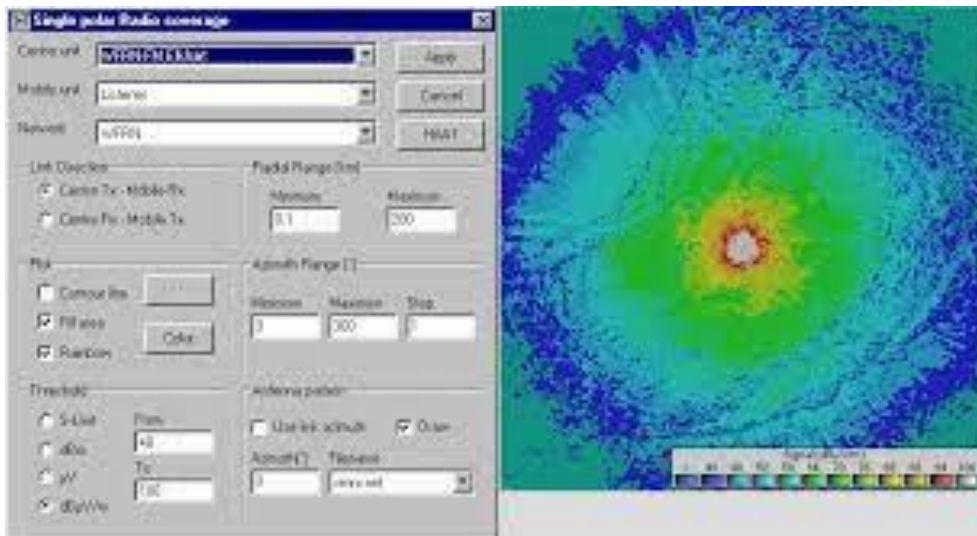
RF amplifier design, Low Noise Amplifiers, power amplifiers, all covered.



Course Telecommunications (6 ECTS)

I will give a taste of this course tomorrow in my workshop on SDR radio for the happy few going there...

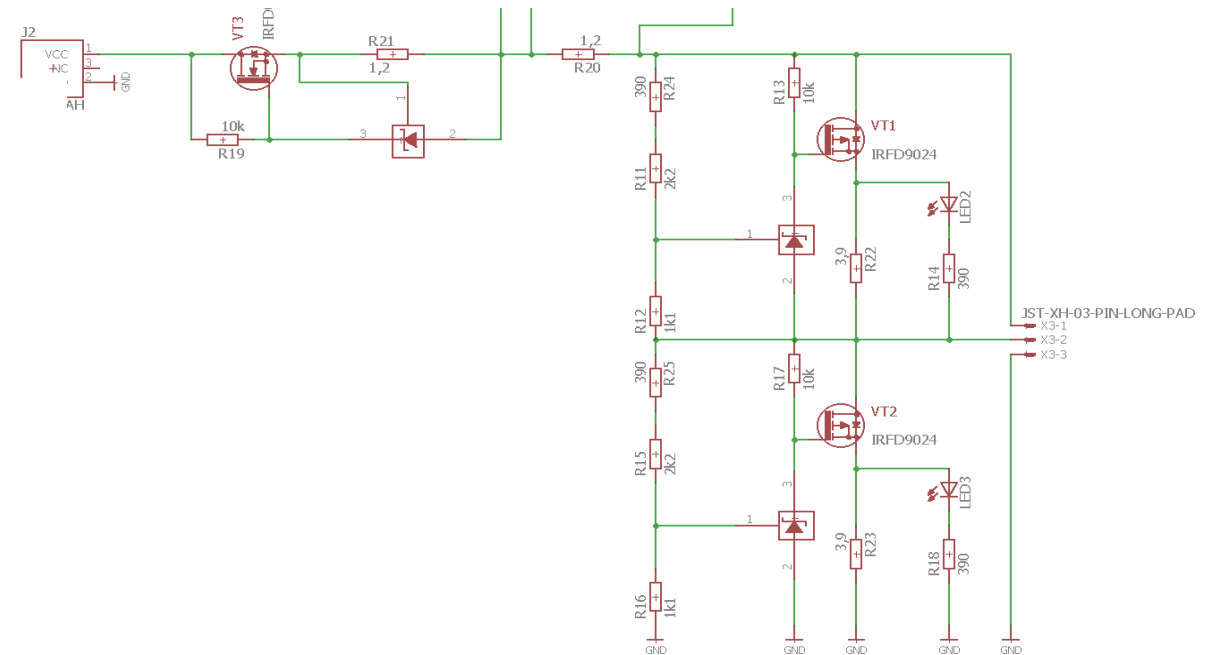
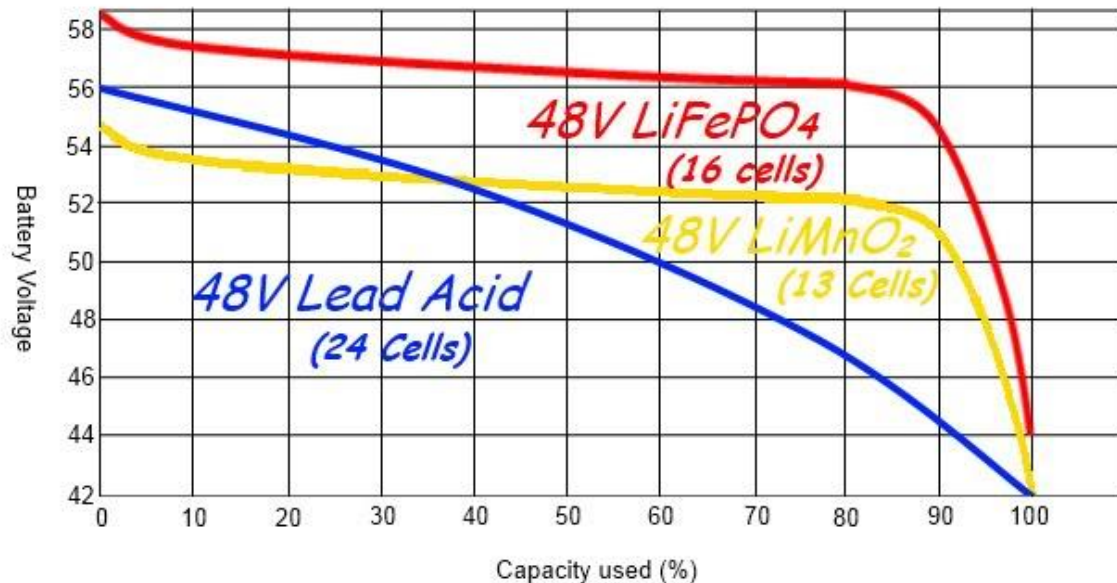
This course focusses on communication systems and explains modulation types such as AM, FM, SSB, QAM as well as radio wave propagation and radio coverage modelling.



Course technology (3 ECTS)

Last but not least what I call a **“gapfiller” course**, talking about all kind of stuff not covered in other courses, such as semiconductor cooling, EMC testing, practical component selection, battery systems and chargers,.....

Typical Discharge Curve Comparison



Finally...

If there is one advice I could give you...

ANY student in the EU should AT LEAST take one semester of lessons abroad.

So why not in the center of Europe, in one of the few schools left still offering REAL electronics, not some computer simulation...

If I may give you some dirty little trick secret....

Every school has one of those killer subjects where barely anybody passes the first round. Well, why not take equivalent ECTS points for this subject somewhere else in Europe ?

It's a free world not ?

Some useful links:

<https://www.thomasmore.be/en/degree-students/electronics-ict/de-nayer>

<https://www.thomasmore.be/en/degree-students>

<https://www.thomasmore.be/en/exchange-programmes>

Or better talk directly to Patrick, my internationalisation colleague:

Patrick.Pelgrims@thomasmore.be

He'll be happy to work out the best exchange program for you !

Questions ?

Pedro Wyns

+ 32 479 911 296

pedro.wyns@thomasmore.be

