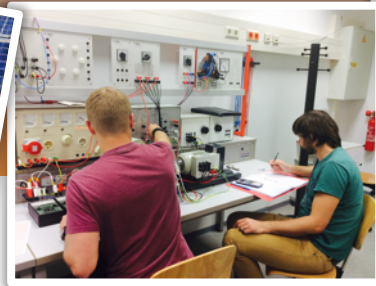
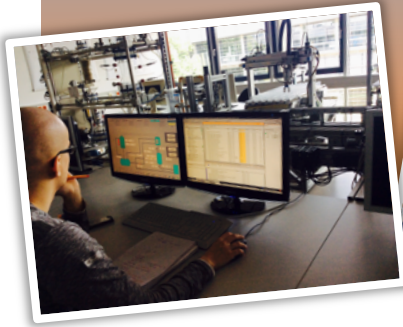


Training report

University of Applied Sciences Magdeburg-Stendal / Technical University Hamburg Harburg



Date and venue

The training took place on 6th Jun 2015 till 13th July 2015 at Magdeburg Hochschule in Magdeburg and we also spent one week at Hamburg Harburg technical university.

The Training

At the first day of the training we had a meeting with Prof. Jan Mugele, in this meeting he give us a headlines about what will we do during our training, and he also show us the office that we will stay in in this period.

Our tasks were:

- To attend all the laboratories, to share our knowledge with the other colleges and at the same time we can take a good experience from them.
- To attend the energy lectures which were held on the electrical energy department (Elektrotechnik Haus 8).

Prof. Mugele arranged a meeting with all the staff in the department to introduce ourselves to them to be able to finish our tasks in easiest way with their cooperation.





During our training we attended a lot of laboratories, which are:

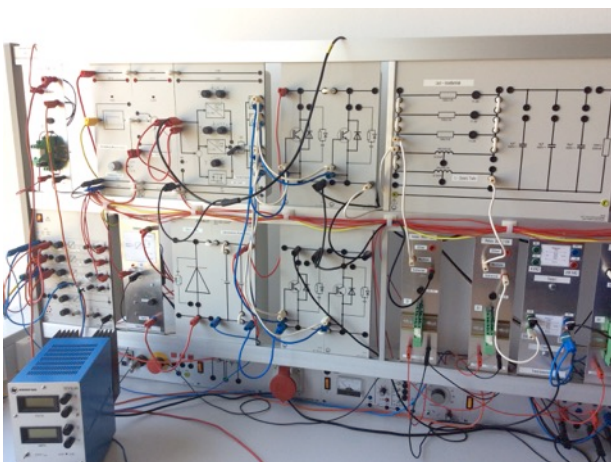
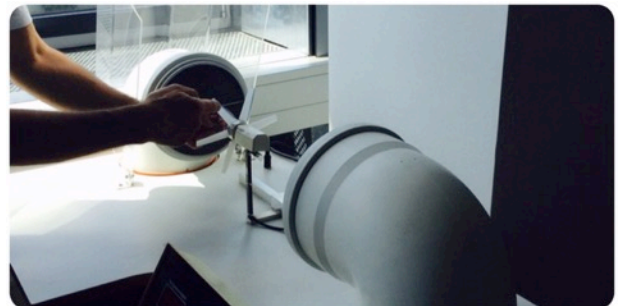
1. Regenerative energie Labor
2. Leistungs elektronik Labor
3. Eingebettete Mikrocomputer system Labor
4. Digital signalverarbeitung Labor
5. Elektrotechnik Labor

Actually, there was some of labs not related to our duties and focus points in the German Jordanian university, but we attended them to connect with the German students and laboratory engineers to know the German laboratories system.

Regenerative Energie Labor

There was four experiments in this Lab, which are wind energy measurement, solar thermal system, photovoltaic system and fuel cell.

We attended this lab with engineer Hase, he gave us an introduction about each system and how we can collect data from each one in easiest way.



Leistungs Elektronik Labor

The Power Laboratory in Magdeburg University is designed to offer the students a full understanding on theories from power and energy related courses, as well as hands-on experience on complex system design and up-to-date equipment, so that the students can be well-prepared for the related field professionally.

Control lab

It was a nice experience to see how this lab works. During our stay we worked with the engineer in this lab, we saw how we could control the elevator system, the fire alarms, the robots and the speed of the motor for any purpose.



Digital Signalverarbeitung Labor

The digital lab is one of the lab we attended to get more experience about the german system, actually we don't have a previous experience with these labs.

But we learned how to use a specific program related to the digital lab experiments and we saw a simulation projects done by the students.

Elektrotechnik Labor

The student in the second and fourth semester attend this lab, it has a different experiments for basic sciences.

In this lab they measured sounds wavelengths, thermal conductivity for different materials, PH, the concentration for the citric acid monohydrate, and also they tested a different type of sensors with different type of materials, and also they worked on RL Circuits and how the frequency effects in the wave form of the output.





Field trip

This field trip took place on 23rd. June to Feldheim, we started with a presentation talked about Feldheim park, it consists three different renewable energy types which are wind, biogas and photovoltaic systems.

Regarding the wind farm, we went inside one of the 3MW turbines, it was a nice experience to see the mechanical parts and the control system of the turbine.

And we saw a small photovoltaic system, and a biogas plant which are used also to provide the area around this park with a needed electricity.



Technische universitat Hamburg-Harburg/ Biogas LAB

Duration : 29th of June – 3rd of July 2015

We were introduced to the GB21 test according to the VDI standards, the climate room and the Swedish system were chosen as the test systems for testing the bio-gas production for different samples.

During this training we deal with different equipment to measure the heating value, the gas content, dry matter content and the ash content.



Recommendations

- From our experience in Magdeburg Hochschule we find that the German labs system is different than our labs system in GJU, and we think the German system is more efficient because it give the students the ability to be independent. Actually, we prefer if we can apply this system in our university, too.
- Regarding the training period, it will be better if we can take this chance during the semester to follow the labs from the first experiment and to take better experience.

Our personal experience

We found a different culture between Jordanian and German people in the living style. The transportations are also so different, it was hard to deal with it at first but we finally saw that it was easy and organized very well. We felt about the different in sunset and sunrise time especially in Ramadan.



Submitted by

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