

Network Mechanical and Maintenance Engineering

Participants

Ralf Rosskopf	GJU, Vice President	Monica Heitz	PO Magdeburg Stendal
Safwan Alterazi	GJU Dean	Nawar Farah	HS Heilbronn
Sameer Al-Dahidi	GJU Exchange Coordinator	Mine Altunkas	HS Heilbronn
Dr. Bashar Hammad	GJU, professor	Stefanie Petrick	HS Heilbronn
Eng. Roqaya Alnatsheh	GJU, professor	Manfred Lohofener	HS Merseburg
Dr. Aiman Al-share	GJU Head of Department	Ralph Lindken	HS Bochum
Iris Wildfeuer	GJU, IO network coordinator	Rolf Biesenbach	HS Bochum
		Ansgar Eckert	FH Würzburg-Schweinfurt
		Christian Klöffler	HS Offenburg
		Martin Löffler-Mang	HTW Saarland
		Ansgar Meroth	HS Heilbronn
		Martin Gartzke	HS Jena
		Peter König	HS Trier
		Rainer Eber	HS Aalen
		Dr Naser Al-Nas	HS Braunschweig
		Sebastian Leibrcht	HS RheinMain Rüsselsheim
		Bernd Waltersberger	HS Offenburg
		Rüdiger Kukral	HS Furtwangen

Agenda

TOP 1	Updates from GJU: faculty and staff exchange, statistics and research interests and exchange statistics <i>Dr. Sameer Al-Dahidi (Exchange Coordinator)</i> <i>(15 min)</i>
TOP 2	Presentation about MECH Dual Studies track

	<i>Eng. Roqaya Alnatsheh</i> (10 min)
TOP 3	Presentation on Online-teaching and E-learning tools <i>Dr. Bashar Hammad</i> (10 min)
TOP 4	Presentation on MECH Curricula Development <i>Dr. Aiman Al-share (Head of Mechanical Department)</i> (10 min)
TOP 5	Alumni student presentation <i>Yousef Dama (HS Ulm WS 2020/2021)</i> (10 min)
TOP 6	Open discussion on joint future projects

The exchange coordinator of the department, Sameer Aldahidi, welcomed the colleagues to this second session. He mentioned that this was his third network meeting, unfortunately they had taken place online twice now due to the pandemic.

He introduced himself and welcomed the new colleagues. He then moved on to set the context of the department within the school.

The academic program of this department he explained, is outstanding in the Hashemite kingdom as it combines mechanical engineering and maintenance, engineering while trying and provide theory and practical aspects of these two majors in the study plan. The characteristics of graduates with this unique combination is a highly increased employability rate. He also introduced the number of employees and their function in the department as well as the laboratories that belong to the department.

The department also offers possible cooperation in research with German partners. For this purpose he has established a form for research interests where participants can enter their interests with the goal to find matches and possible collaborations.

The department currently has 20 partner universities and the number is still evolving. The ultimate target of these partnerships is to enhance the student exchange and increase the numbers of outgoing and more incoming students as well as to enhance faculty exchange, both directions, and staff exchange. He explained in detail which mobility programs exist and how they work.

1. Student exchange

Each students 4th year is ideally spent in Germany for 2 semesters, one being the study semester and one for the internship. Afterwards there can be an extension to do the graduation project there.

Before the German Year a student should have completed a minimum of 60% of their GPA, completed 90 credit hours, 160 hours of field-training, passed at least 2 parts of the B1 and passed all obligatory course of MECH to be able to take the elective courses in Germany.

Applications are opened for the GY I together with the IO (International Office), the students are distributed amongst the partners with taking the criteria of the partner universities into account. Once they are in Germany ideally they will take 4 elective courses. Only two courses are allowed to be in English, the rest of their courses should be taken in German.

Then they start the internships, which should be at least 20 weeks long and preferably in industry companies. This is arranged in collaboration with the OIL (Office for Industrial Links), when completed they submit the internship report and will do a presentation in front of all SATS students.

Many students ask for another semester in Germany, for a voluntary internship, to continue the internship they are in, or to do their graduation project. The IO helps with visa questions etc. the number of students who do this is increasing. Due to this expansion the number of seats needed at the partner universities is always increasing.

2. Flying Faculty

The objective of this program is to enhance the exchange of expertise. Its available for professors and lecturers but also industry partners. It includes 48 teaching hours to be completed in two weeks.

The program is funded by the DAAD. For each department there are 2 candidates . In November a call is send out to all partners. The opening of FF is announced and we share the study plan. Partners can check the plan and say if they have an interest in teaching a certain course.

For this year 3 candidates were on the FF list, some online some still hoping to come in person. In November the new application will come out for the next year. Dr Naser was an FF and Sameer asked him to give a quick feedback on his experience.

Sameer pointed out the diversity of the study plan and is sure that a course of interest can be found. He further explained that classes should be held in a combination of German or English or mainly German.

3. Staff exchange

The IO has the mobility program for administrative and academic staff to strengthen the relationships and exchange of expertise. A member of GJI staff may stay In Germany at one of the partner universities, 3 or 4 weeks during semester and longer if in the summer break. He explained the procedure for this and asked the partners to fill out a list of activities happening currently at their institutions where staff exchange could be beneficial.

Mr. Peter König (HS Trier) asked about which courses that students can select. Sameer explained that it depends on the partners. From GJU side Sameer stated that the link is on the page under “study plan” However assuring that the curriculum matches is the responsibility of GJU side and is done by the exchange coordinators.

Elective courses are flexible. A match can be already at 70% of curriculum compatibility. For compulsory course it should be at least a 90% match. The student proposes 4 courses and the EC checks the match and decides if its OK for the student to take the course.

Mr. Lindken (HS Bochum) thanked the exchange coordinator for his presentation He had previously encouraged students for example to take English language courses, not knowing that they were only allowed to take two. He stated it would be helpful if the students and the partners had a clear list of the rules.

Sameer explained that the students have orientation sessions with all of this information. So students are fully aware before the GY of all requirements, learning agreement, rules, timelines etc. He said he can forward the information and send it to all partners.

Mr. Leibrecht (HS RheinMain Rüsselsheim) added they tell the students too that they can choose what they like but the responsibility of if GJU will accept it is on them. To him the signature on the learning agreement means that the course exists and the ECTS are correctly listed. But it can not guarantee that the course are recognized at GJU.

GJU vice president Ralf Roskopf added that the learning agreement is similar to the one for Erasmus, it's a contract and with the GJU signature on it, its binding, this means the student will have these points later. It is of utmost importance that any changes need to be communicated so that the contract can be changed. Its a legal administrative act and is binding for the university

Mr. Waltersberger (HS Offenburg) had learned that the study semester requires 12 credit points and wanted to know if these can be taken out of different course or from 4 courses only. Mr. Roskopf replied that more courses can be taken and credits achieved will always be transferred.

Presentation about MECH Dual Studies track

Eng. Roqaya Alnatsheh moved the network agenda along with a presentation of the Dual Studies updates. She herself is a member of the dual studies committee at GJU. She started with an overview of the dual study program. It is an educational concept that combines academics and industry. As a result will create higher employability and graduates with skills tailored towards industry needs. The first dual studies track was launched in 2018. Now dual studies are running in 4 BA mayors and the aim is to increase this more.

The advantages of these tracks are the enhanced experience and good understanding on theory the students will gain as well as being able to apply this to real world problems, while gaining practical experience and acquiring multiple soft skills that will distinguish him from other graduates

These tracks also include advantages for the involved companies as well. Many students are hired by the same company after graduation which makes their recruitment process is easier since the student is already familiar with the company and processes, students will bring fresh ideas with them, the company will gain a reputation as an innovative and creative company.

How is the dual study program being implemented at GJU? First year students are targeted, they are approached by email and join information sessions to introduce the concept to them and tell them how to apply, after the sessions students who show interest need to fill out applications. Training sessions are then conducted to write CVs and motivation letters, interview training is held as well. The Dual Study team arrange a company day where parents and students can meet to see which matches are mutually desired. Of course all companies that are chosen are related to the mayors the students are studying.

Dual study in mechanical and maintenance engineering we are in the first stages, students had a survey to see if they are interested, the marked is being checked to find interested companies. Due to covid there were some challenges in persuading companies. Once things improve with covid it is expected that companies will be more interested in joining.

Mr. Rosskopf added some feedback from the accreditation agency. There have been new regulations regarding dual studies and there is a lot of uncertainty also in Germany because the accreditation council put further requirements in the Dual programs. He suggested a follow-up meeting if anyone has any tips and suggestions.

Presentation on Online-teaching and E-learning tools

Dr. Bashar Hammad

According to the ministry of higher education all lectures in Jordan should be live, so therefore GJU used MS Teams to adhere to this rule. Live lectures are recorded and become available as a stream if students want to revisit them later. Most faculty members use Teams. Some posted pre-recorded lectures for the pre-requisite courses, others uploaded their recordings on YouTube.

Virtual office hours were also offered via Teams, some students preferred to call the professors. Some professors created WhatsApp groups.

Materials used for classes such as syllabus, lecture notes and any other documents were uploaded on myGJU which is the platform created by the computer center for this exact purpose.

The main tool used for assessments during online teaching was Moodle. The idea was to make sure that exams have many forms to minimize cheating.

Sameer asked the network partners what tools the partners used to communicate with the students. He himself used WhatsApp- but this proved to be complicated.

Mr. Lindken replied that they are encouraged to have a uniform way of communication. They use only Moodle, so that it's only one platform; this can avoid confusion and once students know the tool they will feel more comfortable. Mr. Leibrecht confirmed that they used a similar approach with a one-solution only.

Alumni student report-

Yusef Damra, 4th year student, did his exchange year the year before during covid in Ulm. He had a few challenges academically and socially. It was difficult to integrate into the society due to covid. Luckily there was group work and some events online, he made friends with his neighbors as well in the dorm.

Academically it was challenging, biggest challenge besides the German language, he had 5 courses and only one in English which was much easier. The German courses were electives and supposedly easier, but the format of the course was challenging. Due to being online there was not much feedback and not much evaluation of knowledge compared to GJU where you know where you stand before the exam. In Germany only one exam at the end. This he found intimidating.

Labs were a challenge too, there was little guidance. He felt in GJU it was more clear, in Germany modules were hard to understand, he struggled in the labs more than in the actual coursework. He kept in contact constantly with the professors and asked a lot of questions to his mates.

The internship was hard to find due to the Christmas holidays and of course covid, many positions were later cancelled which was disappointing. In February things were clearer regarding the pandemic and he had multiple interviews. He is now doing in a company in the field of cooling systems which he is very interested in. He would like to work in this later so its allowing him to direct him more clearly in the aspects he would want to specialize in. He stated that GJU had prepared him well. He even is planning to add the graduation project and stay in Germany longer. He will be working in the same company on a project.

The experience has allowed him to grow and develop and learn now to coordinate He grew socially and met a lot of international students, academically it was challenging due to the language and evaluation methods, but thanks to the solid background provided by GJU he felt he was successful.

Professionally he has grown through the internship and he is happy he was able to develop in the field that he likes and he now knows where he would like to head in the future with his career. He has found himself as person and an engineer

Presentation on MECH Curricula Development

Dr. Aiman Al-share (Head of Mechanical Department)

Changes in study plans are required from the ministry of higher education every four years.

Dr. Aiman showed modifications of the plan in detail. The main changes were a reduction in credits because some modules were dropped, others were moved from electives into existing required course. The idea was to create two tracks for the student. An applied track and a maintenance track. According to the track they chose their focus is determined. Moving into ECZS system in light of the accreditation also produced some changes to the study plan.

The link for the new study plan can be found in the presentation that Dr Sameer presented.

As closing words for the session of the Mechanical and Maintenance department exchange coordinator Sameer gave a short overview on cooperation can be enhanced in the future.

- Stronger encouragement for students to come to GJU
- More Flying Faculty
- Stronger focus on research collaboration
- Joint participation in funds

Finishing of the meeting was the discussion of the date for the next meeting which fell on 30th of June and 1st of July 2022.