

Virtual Network Meeting SNREM on 17.06.2021

Participants:

Main meeting room	
Dr. Prof. Ralf Roskopf	VP GJU
Dr. Arwa Abdelhay	Dean SNREM GJU
Dr. Laith Shalalfeh	Vice Dean SNREM GJU
Dr. Mohammad Khawaja	Head of Department
Eng. Fatimeh Hadidi	Exchange Cordinator Civil Engineering
Dr. Mustafa Jaradat	Exchange Cordinator Energy Engineering
Eng. Anas Alswaer	Exchange Officer GJU
Prof. Dr. Jan Mugele	Network head HWR Berlin
Prof. Dr. Torsten Schmidt	Network head HSMS
Monica Heitz	PO Magdeburg
Stefanie Kirsch	Director IO GJU
Prof. Dr. Volker Siegismund	DHBW Mosbach
Prof. Dr. Ralf Holzhauser	Westfälische HS
Prof. Dr. Joachim Schenk	HtWK Leipzig
Marvin Scherzinger	TUHH
Prof. Dr. Wolfram Heller	HS München
Prof. Dr. Dörte Ziegler	HS Koblenz
Prof. Dr. Ansgar Neuenhofer	TH Köln
Markus Eck	HS Osnabrück
Kerstin Hooß	HS Darmstadt
Abdallah Nassour	University of Rostock
Dr. Safwat Hemidat	University of Rostock
Petra Schneider	HS Magdeburg
Andreas Schneider	westfälische Hochschule
Leonore Heiland	HS Zwickau
Stefan Zigan	HS Zwickau
Klaus Habermehl	HS Darmstadt
Thomas Schönmath	HS Zittau-Görlitz

Welcome and Introduction

The SNREM network meeting started with a welcome round before the word was given to GJU VP Ralf Rosskopf for the first point on the agenda.

Updates from GJU: by Prof. Dr. Ralf Roßkopf

Lectures and student exchange during Covid times - lessons learned

The Covid-19 pandemic has introduced some changes at GJU, especially technologically, further influenced also by the ministry of education. Blended learning is to become the new standard and Jordanian universities are required by the ministry to train staff for online teaching. Despite some supply chain issues into Jordan for IT equipment, smart classrooms are about to start being used, livestreaming will then be possible into other classrooms. Still ahead lies the integration of German dimension into the digital approach, however Flying faculty for example will and has been possible in a hybrid format already.

Further updates at GJU referred to the **New GLC language concept (B1 & B2) by Prof. Dr. Ralf Rosskopf**

A complete remodeling of the German language studies took place. It saw the introduction of a fast track B2 which was joined by 1/3 of the students already. The existing external path was terminated due to many students not achieving satisfying results. Students now generally need to follow the GJU study plan. The study plan dictates that all language courses are completed in German 5, German 6 is reserved for technical language, application and intercultural training courses. German 5 will now end with the official B1 Goethe exam (it had previously been an extracurricular exam).

If the student passes with at least 3 parts of the exam he/she can move on to German 6. Those who fail need to retake German 5. There also is an intensive German course in German 6 for students with more difficulties. If the student enters their German year before having completed the exam they are now also obliged to take a language course at the partner university.

Passing the B1 is therefore not a requirement for the German year, however it is a requirement for obtaining their final graduation from GJU. This will lead to students taking their German language studies more seriously and will make stronger use of the options for improvement they are offered.

GJU VP Ralf Rosskopf finished with some final remarks on possible discussion points for the network

- Dual studies (GJU already has 3 running tracks but wants to expand this to all schools)
- German accreditation (the school of SATS audit visit happened day before and was very successful) 3 other visits are scheduled. All schools should start preparing themselves for the accreditation, SNREM also. The network could be of some assistance. GJU is the first university outside of Germany to go through this process.)
- Hydrogen strategy, a topic of global importance, US, China and Saudi Arabia are moving ahead and Germany has a well-funded national strategy on this. The Network can cooperate, or work on joined research. The Jordan- Germany energy platform can serve as potential collaboration tool.
- PHD studies- the ministry will only allow PDHs if they are joint projects. This could be a prospect in the next years. More and more Bundesländer allow universities of applied science to carry out PHDs, this is an opportunity for cooperation.

Jan Mugele (HWR Berlin) thanked VP Roskopf for his participation in the network meeting and asked about the accreditation, if there was a master plan on when which school would go through the process so that the network can help. The reply was that funding was given from DAAD, so that 4 schools would be accredited before the end of 2022. But the recommendation from the Presidency at GJU to all schools is that they should start preparing even without funding at this point. Budget negotiations are on the way.

The floor was opened for comments and Mr. Heller (HS Munich) added, regarding the German year, that if students do not continue in Germany after their German semester this lessens their motivation.

Dr. Roskopf again mentioned that hopefully the German language being a criteria for graduation will serve as more motivation moving forward.

The word was subsequently passed to the Dean of SNREM, Dr. Arwa Abdelhay for the introduction of the **Hydrogen technology project** (*presentation attached*)

The project is a new initiative the aim of which was to create a new dimension of the Jordanian German collaboration in hydrogen production in Jordan.

The key drivers are both the International and national movement in Germany. Germany approved a national hydrogen strategy on 10.06.2020 –its main aim being to meet climate change, also in line with the EU 2010 decision to reach carbon neutrality by 2050. Hydrogen technology has been given general priority in order to achieve these

goals, being referred to as the perfect solution also by the German minister of environment. This is due to Hydrogen having many advantages over other renewable energies such as no emission of Co₂ and almost no air pollution. It has many possible uses across different industries and it can be used as fuel or energy carrier or feedstock.

The government has allocated funding for the project. Some of this will go to partnerships with other countries with an importance on the MENA region.

What role could the MENA region/ Jordan play? Hydrogen production needs a ramp up in wind and solar energy, intense amounts of renewable energy. Solution would be to produce the hydrogen in the MENA region and exporting it afterwards. Of course there are many questions, do we have the capacities and skills, knowledge and technology before adopting this technology.

A study “risk and opportunities of green Hydrogen” (published by Friedrich Ebert Stiftung) highlights that Jordan can be a valuable partner for hydrogen projects due to its strategic location, good infrastructure and the availability of wind and sun. As an added value Jordan has sizeable chemical businesses who could act as a local off-taker of the green molecules and the NEOM project located south of Aqaba could be a partner.

How could GJU support in this? SNREM has the capacity to carry out activities in collaboration with German partners, just as with previous projects in the renewable energy sectors. The plan is to start with the education side of the project, inclusion of hydrogen technology on the curricula and the construction of hydrogen virtual labs (due to the high cost) which can be used for training courses and on the long run be digitalized.

The Jordan- German energy platform could be a bridge builder between academia and industry, a platform for dialogue and collaboration. SNREM is a big network and we can use this as an added value in launching his collaborative project and secure its sustainability.

Mr. Heller (HS Munich) congratulated on the focus on technology. He has a good feeling about the hydrogen project. His question is which practical appliances would/ could be installed so that the project moves forward not only on a theoretical level but on an applied practical level.

Dean of SNREM Dr. Arwa Abdelhay replied that her idea is to progress simple and step by step. First the project should be studied in depth. The knowledge should be transferred to assure that we have the capacities and skills to keep this project going and keep it sustainable. She agrees that it should be a practical project but first we

would start by implementing the knowledge. The final aim and step would be of course to create links with the industry and act upon demand.

Split meetings of the two departments followed –

1.) Energy engineering department

Jan Mugele (HWR Berlin) welcomed everybody again for the separate meeting of the energy engineering department. He highlighted that the strength of the network is that the core has been together a long time, additionally he gave thanks to the new members for joining.

He inquired if the German network can help with the accreditation if help were needed, maybe there could be a separate meeting about this. He added that he hopes that next year we can once again meet in person.

The word was passed to exchange coordinator Mustafa Jaradat for a general overview on the department. He shared his presentation that was prepared by Eng. Anas Alswaer (Presentation attached). Mustafa introduced himself then gave a general overview of the department, currently including 380 students and 12 faculty members. He then proceeded with the framework for the BA degree.

He showed a history graph of enrollment numbers which showed a decline. Explained the exchange programs, about the German year and its prerequisites. Due to Covid only 2 students came to GJU last year.

He then reported on networking activities in the Energy Engineering Department:

Mr Mustafa joined a DGS meeting and thanked Dr Mugele for the connection, desired outcome is to enhance networking, to share knowledge, main topic was lack of students for renewable energy tracks. Some ideas were shared on how to increase numbers of students again.

He also joined the International Solar Energy Society (ISES) their new approach is to enhance international cooperation in higher education on renewable energies (IncOre) by using worldwide expertise and the creation of a worldwide student network. Program launch is planned for October 2021.

Dr Mustafa then went on to explain two projects at GJU

- Solar Cooling System at GJU, he introduced numbers and facts as well as a floor plan for the system and explained that this project can be used for teaching also.

- integrating energy economy modelling concepts in the energy engineering curriculum at GJU. The aim of this project is to train students and faculty in climate efficient economy modelling

Dr. Jaradat finished his presentation with some curricula updates.

Mr. Mugele (HWR Berlin) took the word to address the German language situation. Since GJU is taking a step toward upgrading the German language concept the general conclusion was that there will be a gradual improvement.

Markus Eck (HS Osnabrück) mentioned they have been hosting GJU students for some years, last year there were 9 students. He wanted to raise the issue of work ethics which are substandard. Students often show up late in the semester and miss out on information. He also mentioned the problems with the learning agreement, which is especially bad if then the issue also discovered late.

The situation has actually gotten worse and some of the colleagues are very reluctantly observing if things will get better. He asked for earlier admission of the learning agreements. So they can be checked in time.

Hr. Denemann (HS Münster) added that they are very happy about the exchange program and also that students can go to Jordan. He says that they also offer students projects to partake in so that they can integrate better. This would also improve their German immensely. He concluded that hopefully the new GLC will improve it. They also have a student interested in going to Jordan. He later added that the two students who are studying in Münster at this time are very nice and polite

Prof. Ralf Roskopf mentioned that he will be visiting the university in July and that there will be a chance to meet then. 15th of July probably.

Wolfram Heller (HS München) inquired why student numbers decreased. Is there something that explains this? Also, he wanted to point out that a requirement list was created a while back as requirements towards the GJU students. Such as come to the first classes, mingle with Germans and participate in classes, chose German classes. Work on German during German year. The part about starting on time is always an issue. Mr. Heller met his GJU students for the new semester before the semester started, to give them additional information.

Anas Alsaweer, introduced himself and stated that he is a former GJU alumni who helps students to prepare for the German year. He is well aware of the process. He himself had a remarkable experience and really improved his language skills. His advice to

students is always to work together with Germans but he will try to emphasize this more. In answer to Mr Eck regarding the no-shows, students have a code of conduct that they sign. Regarding the learning agreement, what would help would be a list of available course for both winter- und summer semester to choose from. He wanted to refer back to the student who is interested to join GJU and offered to send him a list of course that are available and that might fit the study plan of this student.

VP Ralf Rosskopf added that we need specific feedback per student. There are strict attendance rules and sanctions for misconduct, so we need specific names. Mr. Rosskopf informed the network that all students are obliged to join courses as a general rule. If they do not there are sanctions. The sooner we have feedback on the cases the sooner the exchange coordinator can get in contact with the student.

Mr Mugele shared his screen to discuss the date for the next network meeting that will hopefully take place in person again. He mentions that it might be a good idea to not hold joined meetings anymore between the two departments so that there is more time for each to discuss. Noone opposed this. He raised the question also of where we could have the next network meeting. Berlin would be an option, also the network could travel to Jordan. Mr Heller added the main thing would be to meet in person, that way discussion is easier and more topics would come to light.

VP Ralf Rosskopf informed the network that there is talk of an sustainable energy conference that is being organized b Mohammady Al-Abdous for 2022 and maybe a network meeting could be linked to that.

Monica Heitz (PO Magdeburg) mentioned that the SNREM network was in Jordan not too long ago so it might not be possible due to budget reasons and other networks having priority on this. Spitting the departments into two would also influence this and reduce budget.

Mr Mugele asked where else the network could meet, Zittau was initially on the list for 2020. Thomas Schönmuht (HS Zittau-Görlitz) confirmed this might be possible. Jordan will remain first priority.

Lastly a date was proposed, 23/24.06 2022, and agreed upon by everyone.

Jan Mugele thanked the partners for their participation in the spilt meeting and highlighted again that the hope is that everyone will meet in person soon.

Monica Heitz (PO Magdeburg) mentioned the importance for output of the network. Of course the German year is important to everyone, however the topic should not dominate. Joint new projects are the main focus. She proposed on a shift away from the

German year, maybe even separate meetings apart from the network so that in the meetings fostering of new ideas would be possible. Jan Mugele agreed that yes the main focus should be on exchange. Shorter presentations and longer discussions are the aim.

Water and civil engineering network breakout session

Participants

Arwa Abdelhay	Dean SNREM GJU
Fatima Hadidi	Exchange coordinator GJU
Muna Hindiyeh	GJU
Thorsten Schmidt	Netzwerksprecher HSMS
Klaus Habermehr	HS Darmstadt
Petra Schneider	HS Magdeburg
Dörte Ziegler	HS Koblenz
Lennert Trümper	Student HS Darmstadt
Nicola Schröder	HS Magdeburg
Stefanie Kirsch	Director IO GJU

Thorsten Schmidt (HSMS) opened the breakout room first in German with the fact that the water engineering course at GJU would end soon and how this could shape the future of the network. He proceeded to mention the language level challenges for GJU students. Klaus Habermehl (HS Darmstadt) stated that they did not have a lot of Jordanians but that other foreign students from Ireland and England were also problematic.

Ms. Petra Schneider (HSMS) informed the network that her colleagues had reached a point where they did not want to accept GJU students further.

Dean Arwa joined the meeting and the meeting language switched to English.

Thorsten Schmidt opened the meeting once again referring back to the presentation by Mr Rosskopf about the German language level. The language has been a problem since he joined the network, but he hopes that the changes mentioned will show effect.

Exchange Coordinator Fatima joined the meeting and gave some overview of the projects happening at this moment in the department.

She introduced the department and who has what function and announced that some new academic staff was going to join the following year. She proceeded with some numbers and statistics. At this moment numbers are increasing. There are a total of 533 students enrolled at SENREM at present moment. Although there was a decline in numbers in the past few years in water engineering, civil engineering experienced an increase. The two departments merged as a consequence. Most of their courses overlap, around 70% are the same, as she exemplified by sharing the study plans. Fatima shared a map of the current German partner universities and some statistics about outgoing students, German year and internships.

Mr Thorsten Schmidt opened the room for a Q and A session and gave the word back to Ms. Schneider. In her opinion the problem often is that GJU students expect the teachers to speak English. Ms. Schneider commented that the motivation of the colleagues has declined. The language is not the only issue, the students often require a separate examination, one that is in English. It's these demands that tire the colleagues. Students were told they should pass the normal exam and lectures in German. The result was that the students simply stopped attending.

Fatimah replied to this that the regulations at GJU have been adapted will hopefully increase language levels. The new batch of students want to also do their internships in Germany so the importance of speaking the language well is more present in them. She added that no exceptions should be given as a way of motivating the students.

Ms. Schneider replied that especially for civil engineering the courses in Magdeburg are exclusively in German and the students will not be given a choice. Thorsten Schmidt concluded that maybe GJU students had been treated too nicely in the past. He had some experiences that were similar.

Dean Arwa took the word for a quick feedback, in her opinion it is a two way street, GJU is working on increasing the level but the issue needs to be tackled from both sides. She recognizes that the colleagues were trying to be helpful. However she supports Fatimeh making clear to the students that they need to take the German language seriously.

Hr. Schmidt added that seen from the presentation from Mr. Roskopf he thinks there will be improvement, he relates to the students as well, but he also mentions that for civil engineering there will not be the option of English.

Dörte Ziegler (HS Koblenz) added that at her university they do not share the situation described by Ms. Schneider. Students are interested and motivated and ask kindly if they need help. Nevertheless the limits of the aforementioned help were discussed and the conclusion reached was that the limit is at the exam, no special English exams will be granted to GJU students. It can be an overwhelming experience for the students, on many levels, and maybe it's normal that they will not pass all of their courses.

Exchange coordinator Fatimeh continued her presentation, listing the projects that are currently taking place at GJU

Presentation on programs and projects

- MSc program WASH Humanitarian Water, Sanitation, and Hygiene, Started in February after having been postponed due to covid
- Restoration of ancient Nabatian flood control system at Petra, Jordan won an award, prevention of flooding in Petra, through better understanding of the hydrology of the area
- Waste to Positive Energy, a fast growing topic of importance in the region, same with Climate resilient cities
- Water security in Jordan from Data to Decision Evidence based knowledge, collaboration between scientists and decision makers academia and practice
- Environmental assessment of Irbid vegetables and fruit wholesale market
- Environmental assessment of GIM slaughterhouse
- Traffic Safety MSc program, funded by Erasmus, new master program
- Integrated Water Resources Management IWRM, joint master with Colonne HS
- Installation and implementation of a pilot plant for the treatment of olive mill wastewater in Jordan cost efficient and environmentally sustainable

Thorsten Schmidt thanked exchange coordinator Fatimeh for the presentation and stated his joy over there being so many new projects in existence even during the time of the pandemic.

The breakout session was terminated and the participants joined the main room again

Jan Mugele announced that due to the time limit he would postpone his talk on dual studies to a sub- meeting for anyone interested at a later point.

Monica Heitz added that this could be a general solution, shorter sessions virtual meetings, for certain topics if members are interested.

The next point on the agenda was the **Study Group Mobility Project “Cool down, green and air cleaning though plants in Amman”** *presented by 4 participating students, Maike Katharina Senk (UI), Lennart Trümper (UI), Jonas Buch (UI) Philipp Werner (BI)* (responsible professors Prof. Dr. -Ing. Klaus Habermehl, HS Darmstadt & Prof. Dr. Muna Hindiyeh, GJU). The joint project between GJU and HS Darmstadt students has the objective of greening Amman as well as noise reduction. The students spoke about how

this would be implemented. The background information on the project is that cities will heat up more and more in the summers due to climate change. Also more and more people are moving to Jordan which will also influence this. Cities need to counteract climate change for example by creating green areas. Some examples were also shared from Germany. The presentation finished with the project timeline. Implementation in Amman is planned for October/ November in collaboration with GJU.

Hr. Heller raised the point about water in Amman. The students replied that maybe grey water could be used and also the type of plant used can be decided on taking the water shortage into consideration. Dr. Muna Hindiye commented that for example waste water can be used, this concept can also be applied at GJU for example. It could also be a service for the community near the GJU. Near GJU there is a bus stop and there are also schools.

Mr. Siegismund (DHBW Mosbach) asked about the involvement of GJU students and was answered that collaboration was about the start in the next phase of the project. He is planning a similar project and will get in contact with Dr. Habermehl from Darmstadt. Ms. Ziegler informed the meeting that there was a seminar on planning for “climate resilient cities” which was joined by many students across a multitude of disciplines, architecture, logistics energy and water management. The seminar analyzed alternatives for building techniques and transport as well as grey water management. She mentions this as possible option as collaboration.

Dr. Arwa seconds the opinion by Prof Heller about the water challenges students may face when implementing this project in Jordan. Maybe hydroponic systems could be considered or a cover system to avoid evaporation.

Expansion of Civil and Water Engineering Network

Thorsten Schmidt asked for an update on the expansion process. Dr. Arwa explained that the aim of the expansion is to create a variety of universities with different research lines. GJU students have the option to extend a third semester to do their graduation project in Germany and diversity in partners will help widen the spectrum of options. For now the choices are limited. Most universities are very oriented towards water and environmental engineering, but in Jordan these two disciplines are held under the wider umbrella of civil engineering. To give the student several options we are trying to expand the network. If a student wants to specialize in transportation it is a shame that they cannot find course for this and are forced to take a water engineering course instead for example.

Thorsten Schmidt recommended Prof Bürler-Giegler who can maybe help with the expansion.

Mustafa asked via chat if maybe we could organize a meeting on this topic separately from the network. Thorsten Schmidt asked for more context on how the network can help to expand the seats.

According to Mr. Heller the best approach might be to meet in person with potential partners and convince them to work with GJU.

A alumni student report was the next agenda point

Report by Dana Tamim

Dana graduated the summer before. She did her German year in 2018 in Gelsenkirchen, Fatimeh Hadidi was her coordinator. Her German level was basic and at the beginning lectures were hard but in all aspects it was good experience. All minor issues were easily solved.

In her second semester she joined the Emscher Genossenschaft Technikum for the Internship and she appreciated the hands on experience and opportunity to gain practical knowledge.

She is currently a master student in Hamburg doing environmental engineering, she would like to choose the water specialty.

Jan Mugele suggested that we should start with the alumni report earlier on the agenda in the network meetings and everyone was in agreement on this.

Closing comments

Jan Mugele is content that the topic of the language level is a priority at GJU now and thanked Mr Roskopf for his efforts. Hopefully in the close future there will be improvements. Then the network can focus more on other issues. Mr. Thorsten Schmidt seconds this and added that the only thing to be done now was to await the results from the changed concept introduced at the start of the meeting.

Mr. Heller informed that at this moment he has very good students at HS München and they really are trying to speak German and are not closing themselves off. Finding

friends will really help them. He also recommends that students make the most of their practical experience during the internship.

Dean Arwa added that the language level is on the table also in every council meeting. Results however cannot be seen on the spot. But there are new ideas and solutions for improvement which will continuously happen. She also asked for support in working together with the German partners. She mentioned that the students take a lot of steps away from their comfort zone and are under a lot of pressure. Of course there are some who take advantage of the situation, but many are truthfully overwhelmed. Hopefully in the next meeting improvement can be reported.

Dr. Monica Heitz from PO Magdeburg emphasized that the idea of the network was to enforce collaboration and create output. Generate new ideas, collaboration through joint projects. The German language level should maybe be discussed in a different way maybe in separate meetings outside of the network. Same goes for the study programs. This focus is also important since the next call for proposal is coming up next year and results for the previous funding period will need to be presented.

Jan Mugele remarked that the time of the meetings is too short. He suggested to maybe use the power of all networks together to discuss certain topics such as the topic of dual studies. There needs to be time to speak about the problems. A separate meeting for dual studies was agreed on and will be organized September or October 2021.

Mr. Ralf Roskopf closed with pointing out the potential of the online meetings, of course the network would continue with a physical meeting yearly, but maybe also additionally there could be smaller online meetings 4 to 5 times a year.

Lastly the date was fixed for the next network meeting for energy engineering, which will be 23.06 – 24.06. Possible host universities for the meeting in Germany would be Berlin or Zittau, preference is given to hold the meeting in Jordan if it could coincide in date with the Sustainable Energy Conference that is being organized by Mohammad Al-Abdous for 2022.

For the water engineering department a date still needs to be proposed. As was discussed in the breakout session, the energy engineering network had proposed the idea of two separate meetings, this remains to be decided.

Jan Mugele thanked all participants and officially ended the network meeting.