

WATENV Newsletter

No. 4 January 2014



Dear WATENV alumni and friends,

with this winter edition we would again like to share the news of the last months with you.
We are happy to receive numerous reports from our alumni and their current work, please keep it up
to stay in touch and have a great year 2014!

Best greetings,
Eva Starke (WATENV course manager)

WATENV NEWS

New students in winter semester 2013/14

In October 2013, 23 new WATENV students began their studies at Leibniz Universität Hannover, 8 of them within the scholarship program of the German Academic Exchange Service (DAAD) „Postgraduate Courses with special relevance to developing countries“.

Exchange agreement with University in Chile

A new student exchange agreement has been signed between the Leibniz Universität Hannover and the University of Concepción (UdeC) in Chile. Students of both universities have the possibility to spend part of their studies at the partner university, within the M.Sc. program Water Resources and Environmental Management in Hannover or in the Master Program in Agricultural Engineering at the campus of Chillán, University of Concepción. Just recently one of our WATENV students, Christine Schnorr from Germany, finished her Master Thesis as a “pioneer” at UdeC.



New DAAD scholars in front of the University of Hannover; (left) the campus entrance in Chillán (University of Concepción, Chile)

RECENT STUDENT ACTIVITIES

University prize for international students awarded to WATENV student from Albania

Each year, the university's International Office and the German Academic Exchange Service (DAAD) award three to four international students, who stand out for their excellent academic performance and their social engagement, with a special prize. This year one of our WATENV students has again been selected: Bora Shehu from Albania. Bora has so far achieved the best grades of her class, is working as a tutor for junior students and also engaged in the voluntary WATENV team. The prize has been presented to her by the president of LUH, Prof. Barke, in a ceremony at the university's Leibnizhaus in Hannover's Old City. Congratulations Bora!



Award ceremony at Leibnizhaus:

Left: Prof. Barke (second from right) together with the award winners, the head of the International Office and a representative of DAAD
Right: Bora Shehu at her acceptance speech (Pictures: Ludwig Schöpfer, International Office/LUH)

Excursion to Celle: Castle and Christmas market

In December, the WATENV programme held an excursion to Celle. Celle is a historical town, more than one thousand years old, and is popular for the picturesque Altstadt and the Duke Castle. As such, the trip included a guided tour inside the Castle and a tour to the Christmas market in the Altstadt.

The journey began with a visit to the Celle Palace (also known as Schloss Celle), which is a four-winged castle surrounded by a water channel. Built in the 15th century, the castle is a typical water fortress in the renaissance style. As it is located within a green park, the panorama was perfect to shoot some photos. Afterwards, we had a tour inside the castle. Personally I was surprised by the internal space, as the original old elements of the building were integrated with the modern architecture. For me as a Civil Engineer, this combination was both intriguing and fascinating. As we visit several rooms in the castle, little by little, the story of the dukes and kings that once lived in this castle was revealed; especially the story of the Danish queen Caroline, banished to Celle castle until her death. At the end of the tour, we could visit the most remarkable room: the chapel. Even though it was small, the chapel was very well preserved and decorated. As I looked behind the protective glass, I was amazed by its beauty. Although it is more than 5 centuries old, the chapel hasn't lost any of its glitter.

After the castle tour, we decided to take a walk along the old city centre (Altstadt) and visit the Celle Christmas market. Celle Altstadt is considered to have one of the most remarkable timber-framed house streets in Germany. Of course under the glow of the Christmas lights and decorations, Altstadt was even more beautiful. We took a glass of Gluhwine as we wandered around the streets looking at the old houses and enjoying the nice atmosphere of the Christmas market. We had the opportunity to have a close look to Celle's history and culture, and to enjoy a nice evening in each other's company.



*by Bora Shehu, Albania
(3rd semester WATENV student)*

WATENV students at the castle in Celle

Alumni portraits

Damaris Oyaro Kerubo, Kenya

Damaris was one of the first nine WATENV students and graduated in 2011 with a major in Sanitary Engineering. She resumed back to her former work as an engineer in the Ministry of Environmental, Water and Natural Resources, She is based in the headquarters in Nairobi and is a member in the planning and design department where she deals with programmes mostly in the arid and semi arid areas of Kenya. Her duties include feasibility studies for water and sanitation projects, resettlement action plans, water quality and pollution control, and planning and design of water and sanitation structures, among others. She is also involved in training other members of the staff.

Thinking about her M.Sc. studies with WATENV, Damaris tells us:

„The knowledge I gained from WATENV courses is really assisting me in all my day to day duties. All the courses I took have been so helpful and of interest for my current tasks.“

She recently presented a paper based on her M.sc. thesis in the Regional INWES (International Women in Science and Engineering) Conference 2013 that was held in Nairobi, Kenya. She is also currently developing a proposal, and for this is in contact with her Masters' Supervisor. „I am glad that he is guiding me in this“, Damaris says.



Damaris in a stakeholders meeting in Laisamis, Marsabit County, and conducting a feasibility study, for the siting of a dam for water supply to Maralal town

Mohammad Mahtab Hossain, Bangladesh

Mahtab graduated from the WATENV programme in 2012 with a major in Water Resources Management. His Master's thesis was on the topic of disaster adaptation from cyclones and the modelling of coastal erosion within his home country of Bangladesh. Bangladesh is one of the countries most vulnerable to climate change impacts such as increasing storm surges, reduced rainfall leading to reduced crop harvests and salt water intrusion of ground water supplies. Most of Bangladesh lies below 12 m elevation, and the capital and largest city Dhaka, with a population of 15 million people, is situated in the heart of the Bengal Delta. It is estimated that up to 20 million climate change refugees will be displaced in Bangladesh over the coming decades.

Since graduation he has been employed by the Water Development Board in his native Bangladesh. The Water Development Board is responsible for all aspects of water planning and management within Bangladesh, including flood and draught forecasting, flood risk management and the modernisation of the hydrological network. Mahtab's role is to collect vital field hydrological and meteorological data (i.e. river discharge, precipitation, evaporation). This information is a critical input for the planning, design and construction of hydraulic structures. Many modules from the WATENV course have direct transfer to these tasks, in particular Hydrology and Water Resources Management (I and II), Environmental Data Analysis (Statistics) and Environmental Hydraulics (River Hydraulics).

Recently in July 2013, he participated in a month long study tour of Japan organised by the Japanese International Cooperation Agency, Japan's international aid organisation. The study tour focussed on the transfer of practical knowledge of water management systems, flood forecasting systems and hydraulic structures within Japan. Japan similarly faces the constant threat of storm surges and other natural disasters such as earthquakes which can cause tsunami waves. Through heavy investment and extensive engineering interventions, Japan has mitigated the risk posed by such natural disasters. There are many parallels that can be drawn between Japan and Bangladesh and knowledge transfer between the two countries will help Bangladesh tackle the current and future issues it faces.



Mohammad Mahtab explaining his work

Solomon Hailu, Ethiopia

Solomon graduated in September 2013. Directly after receiving his M.Sc. in Water Resources and Environmental Management, he joined the International Telecommunication Unit (ITU) in Geneva, Switzerland, as an intern within the Carlo Schmid Program (CSP) of the German Academic Exchange Service (DAAD). The CSP is promoting internships in International Organizations, usually for German highly qualified young academics, but each year a few places are reserved for DAAD scholars who are finishing their Master's in one of the international Postgraduate Courses with special relevance to developing countries. The selection for the highly sought after internship places is very competitive.

Solomon reports about his internship:

„The ITU is the United Nations (UN) specialized agency responsible for Information and Communication Technologies (ICTs), which develops worldwide standards that foster seamless interconnection of a vast range of communications systems. I am working as a junior Environment and Climate Change officer under the supervision of Ms. Cristina Buetti, Advisor of ITU-T Study Group 5 Environment and Climate Change with a focus on Smart Water Management and Smart Sustainable Cities.

This is a good opportunity for me to be a member of this active department and I have gained already some valuable experiences. Briefly, I am writing research papers on "The role of ICTs in water resource management" and "Partnering for solutions: ICT and Smart Water Management". Both reports are expected to be published by ITU and UNESCO in March 2014. In addition to this, I have been responsible for the organization of various events related to ICT and water resource management. These events provide an opportunity to the ICT and water resource professionals involved to develop different standards and to exchange experiences."



Solomon (second from left) together with his studygroup at ITU.

Eduardo Dose, Paraguay

Eduardo successfully completed his M.Sc. studies in 2012, with a Master thesis supervised at the Federal Institute for Gesosciences and Natural Resources (BGR), which is located in Hannover. He just recently published a paper on his work together with his supervisor at BGR, Dr. Houben, and second examiner within the WATENV program, Dr. Dietrich, from the Institute of Water Resources Management at Hannover University. His findings included the correction of a formula published in a well-known scientific paper many years before. Eduardo received two awards within the last year: One by the authority of the state Itapúa (Paraguay), where he lives, with the statement of "illustrious citizen of the state". This award is intended for people with outstanding contributions in study and research. The event was held in a session of honor in the state council governorship in Itapua. In December 2013, he also received the award of "Outstanding young person of Paraguay 2013" by the Junior Chamber International. The event award ceremony was held in the hall of the National Congress, and Eduardo had the honor of receiving it from the hand of the vice-president of Paraguay.

Eduardo recently was hired by the "Yacyreta" (from the Guarani "Land of the moon") Hydroelectric Power Station, which is a bi-national co-operation (Paraguay and Argentina), placed on the Paraná River (fifth largest river in the world, 2nd longest after Amazon river). He works as the general coordinator of the Plan "Cultivando YPorá" (from the Guarani: Cultivating Good Water), which is a socio-environmental plan focused on the integrated water resource management of the catchment's contributors to the Parana river on the Paraguay side. Eduardo happily reports: „This is a big challenge for me, but I think that the WATENV programme gave me a great preparation that allows me to perform at my best."



Eduardo (second from left) at an award ceremony

Graduates 2013

In autumn 2013, 18 students graduated as M.Sc. in Water Resources and Environmental Management. Seema Samad (Pakistan) received the award for the best student of her year.

Congratulations to you all!



WATENV graduates 2013:

Mercedes Buzzella (Argentina), Liguó Chen (China), Anis Sarwar Chodhury (Bangladesh), Quoc Anh Thu Doan (Vietnam), Graham Cuff (USA), Solomon Hailu (Ethiopia), Katrina Mariner (Samoa), Faisal Mullalayam (India), Ehsan Pajooh (Iran), Ogotse Pule (Botswana), Seema Samad (Pakistan), Dagmara Wziatek (Poland), Tala Yazdan Panah (Iran), Allan Zelaya (Honduras)

Not in the picture: Said Abuwarda (Palestine), Christina Katimada (Greece), Zeynep Isözen (Turkey), Christine Schnorr (Germany)

Recent paper published by WATENV alumni:

Dose et al (2014): Experiments and modeling of freshwater lenses in layered aquifers: Steady state interface geometry. *Journal of Hydrology*, Vol. 509, 621–630.

Fangmann, Belli, Haberlandt (2013): Trends in beobachteten Abflusszeitreihen in Niedersachsen. *Hydrologie und Wasserbewirtschaftung* 57 (5), 196–205.

Hirthe and Graf (2012): Non-iterative adaptive time-stepping scheme with temporal truncation error control for simulating variable-density flow. *Advances in Water Resources*, Vol. 49, 46–55.

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