

DOUBLE DEGREE WASTE MAUI

Starting from the winter term in 2016, the WASTE program officially has its first Double Degree students. Everything started when representatives of Stuttgart University went to Brazil and made partnerships with SENAI-PR (National Service of Industrial Apprenticeship of Parana) and the Federal University of Parana (UFPR), to come up with a Master Course in the environmental area, regarding water treatment, wastewater, air quality control, solid waste and pollution prevention. Several years later in 2015, the partners signed an agreement and the first Double Degree students arrived in Germany. In Brazil the MAUI (Meio Ambiente Urbano e Industrial; Urban and Industrial Environment) program is recognized by the Ministry of Education and in Germany the WASTE program has excellent recognition and accreditation, with both being high level programs in either country. Among the responsible people for the Double Degree Program here in Stuttgart are Prof. Dr. Jörg W. Metzger and Dr.-Ing. Daniela Neuffer (Course Director MAUI of University of Stuttgart), and the first



Double Degree students in Germany are Francine Bucco, Tigni Hu and Marcelo Korelo. We from the WASTE Newsletter interviewed the five aforementioned people to learn more about the history and background of the Double Degree and also the expectations of the new WASTE students.

WN: Professors, to introduce you, can you please tell me about yourselves, your specialization area, your practical work at the Double Degree Program and also your responsibilities in the program?

Dr. NEUFFER: I'm graduated from the University of Stuttgart in civil engineering and have done my PhD in
>>> continues

News and announcements

GRADUATION CEREMONY 2016 - FROM INSPIRATIONAL MESSAGES TO GREAT ENTERTAINMENT

I would like to congratulate all of the graduates of Generation 14 and wish for your utmost success. You have all been a great inspiration, and served as important mentors for us. You have helped us so much during our first year in the WASTE master's program, we're not fond of having to see you go, but we're eager to see what you'll be pursuing next.

During the past year we had planned and prepared another graduation ceremony for our senior class. We finally got to enjoy the fruits of our labor as we had another pretty successful celebration to say farewell to our friends who have successfully completed their WASTE MSc.

During the official graduation ceremony, Dr. Acuña had taken the reigns of the Master of Ceremonies at the official graduation ceremony.

Dr. Kronenburg opened up with a comedic and inspirational message

to the graduating class. He explained how Angela Merkel really started off as "combustion simulations" researcher, and slightly hinted at our potential to become the next big thing in global politics. Dr. Martin Reiser, was named the Godfather and gave his warm wishes for the graduating class.

Then Dr. Pius Trautmann, representing Mann+Hummel GmbH, presented the academic awards to the top three students of our program. These awards were sponsored by Mann+Hummel GmbH while BASF and the Vereinigung von Freunden der Universität Stuttgart e. V. were also sponsoring part of the event. Our WASTE students have gone on to do Master's theses and internships with these companies, and we are very grateful for the support you have given to our program with regards to sponsoring these awards. This year's

winners were none other than: Mariana Uruñuela Saldaña (1st Place), Golnoosh Mahami (2nd Place), and Marcel Sánchez Pereira (3rd Place). It wasn't a surprise to see some of our favorite tutors take home these prizes. Dr. Vogt finally presented the diplomas to our graduates, and ceremony ended with a choir ensemble singing our song: "Go WASTE".

Everything went smoothly and the party was great entertainment. DJ Juan, had a great playlist set. One of our graduates, Alejandra Muñoz, took the stage with a Mariachi band and serenaded us with beautiful music. Nelson, our class co-president from Generation 16, coordinated a flashmob with the juniors.

This graduation ceremony was certainly something special.

Kevin Nhan
Student of WASTE - Generation 15



>>> DOUBLE DEGREE WASTE MAUI

environmental engineering. I have been involved in MAUI since the beginning of the program. I went to Brazil first in 2005 to establish this international program with the other two partners (UFPR and SENAI-PR), and represented continuously for five years the University of Stuttgart in Curitiba, Brazil. So now I am still the MAUI-coordinator of the German part and Course Director MAUI at University of Stuttgart together with my colleague Dr.-Ing. Karen J. do Amaral, who is my successor and who is based permanently in Curitiba. I give classes for MAUI in Curitiba twice a year and when I am there I assume the coordination there. I am a researcher at the ISWA, in the department of industrial water and wastewater technology. My research area is industrial and waste water and their reuse, as well as water supply with potable and process water and their treatment. I also researched anaerobic processes, sludge treatment and biogas generation for my PhD and I am furthering my research in that area. In 2008 the first classes I offered for MAUI students were 'Treatment of Sludge and Industrial Waste', 'Water Supply' and 'Treatment of Potable Water and Process Water'.

Prof. METZGER: I'm one of the four permanent professors at the ISWA where at present I'm managing director. I am holder of the Chair of Hydrochemistry and Hydrobiology in Sanitary Engineering and have been in Stuttgart since 1996. I'm a Chemist and I graduated from the University of Tübingen. Our main focus of research is environmental analysis and proficiency testing with close cooperation with the engineers. We have a special focus on micro-pollutants e.g. biologically active components of pharmaceutical drugs or industrial chemicals with hormonal activity that end up in the sewage treatment plant from where they might enter and contaminate the surface waters. To test hormone activities we established a bioassay (E-screen assay) in our laboratory. Concerning teaching and education, I'm Dean of the Environmental Engineering program and Vice Dean of WASTE. For WASTE and WAREM students I give lectures in Organic Chemistry within the module 'Chemistry and Biology for Engineers'. As former Vice Dean of the Faculty 2 have some experience in the administrative processes of the university. Together with Prof. Dr.-Ing. Uwe Menzel from ISWA I was in charge of the 'German part' of the MAUI program from the beginning and I was also there when we started in 2006. In 2008 the first classes I offered for MAUI students were 'Environmental Chemistry', 'Analytical Chemistry', 'Chemistry of Wa-

ter and Waste Water', and 'Exotoxicology and Risk Evaluation of Pollutants'.

WN: And about the students, what are your specialization areas? Can you point out some differences in the environmental sector in Brazil and in Germany?

TINGNI: We are doing our theses in different areas. Francine studies solid waste and water treatment, Marcelo studies air quality control and I study solid waste. So, the three of us, together, complement each other.

FRANCINE: We already know the real situation in Brazilian and as long as we had classes with the German teachers we learned about the situation in Germany. We are grateful that every day here we can see the reality that they explained during the classes in Brazil. So now we are able to see in practice all that we have learned in Brazil in theory. In Brazil, we have several research activities going on, but just a few are put into practice. Here we have also research, but unlike in Brazil, the knowledge resulting from research is applied in real life.

TINGNI: Another interesting point is that the researchers here participate actively in the implementation of the regulations, since they specialise in that field and they have more knowledge to help with the regulations. Unfortunately this does not happen in Brazil. The researches here have a more active voice when it comes to participating effectively in the decisions impacting society, and when it happens the development of technology it is just a complement for the things to work in a better way.

FRANCINE: That is totally true, and we know that the environment should be connected with society, and Germany achieved this goal of connecting society with environmental issues. For instance, the collection of plastic bottles in the supermarkets, where one receives money back for the bottle, This small initiative helps to give people an incentive to work together for a common well being.

TINGNI: So having the lectures here helps us analyse the differences regarding the environment between Germany and Brazil.

WN: Since when did the University of Stuttgart and the UFPR become partners, and where did the idea of the Double Degree Program come from?

Prof. METZGER: Well, the idea of the MAUI Masters Course a professional Master Program at UFPR, came when a lack of important knowledge in the areas of solid waste and wastewater treatment was identified. This happened during a first project with Summer Schools taking place in different cities in Brazil where already the majority of present lectures of the MAUI from ISWA took part. These activities lead to the development of the MAUI program which finally got financial support from the German Academic Exchange Service DAAD. We established the MAUI program improved and optimized it continuously over the last years and the Double Degree was just the next important step to reach.

Dr. NEUFFER: Actually we had this contact between the three institutions already before the beginning of the MAUI program. The program was created in 2006 and we began with the first class in 2008. We had the idea of the Double Degree since the beginning of the program but it took a long time until everything got well. We then had the opportunity to establish it last year, in 2015, together with WASTE.

WN: And before it, did you already have a partnership with WASTE? Because ISWA is another institute, right?

Dr. NEUFFER: ISWA belongs to Faculty 2 and the faculty in charge of WASTE is Faculty 4, with a different Dean. But that really does not matter, because our Institute (ISWA) has had a strong relation to the WASTE program since the beginning and it offers the latter lectures and practical work as well as masters theses supervision. In the very beginning I was involved in developing the MAUI curriculum and I used main parts from the WASTE curriculum as a reference, already with the intention to have a Double Degree in the future. That's why today WASTE and MAUI match in so many aspects. During that period we were already in contact with the Vice Rector for Academic Affairs of the University of Stuttgart to see how it could be realized, but it was actually too early to have the Double Degree implemented in that phase.

WN: And tell me about the partnerships, how was the Double Degree Program established and funded?

Dr. NEUFFER: After having established the MAUI program in Curitiba it was evaluated there by the DAAD in 2007 as one of the five best programs of this kind supported by DAAD in the world. The

DAAD asked us from the beginning to establish a Double Degree Option and the mutual recognition of the course in either country (Germany and Brazil).

Prof. METZGER: The DAAD evaluation committee was particularly impressed with the incorporation of an industrial partner (SENAI-PR) joining a Brazilian University (Universidade Federal do Paraná) and a German University (University of Stuttgart) interlinking learning and theory with praxis. This is very uncommon for such programs.

Dr. NEUFFER: In Brazil we are those mentioned three relevant partners, and from the beginning this partnership was really important and still is our unique feature in addition to high standards. For example, this year in October we received a delegation of the UFPR here at the University of Stuttgart to talk about the existing partnership and possible new projects in the future. This shows how closely we work together.

WN: And is it possible to get a scholarship for the Double Degree Program?

Dr. NEUFFER: Unfortunately, not at the moment. We are still working on it and elaborating on a proposal to submit it to DAAD and also internally to the University of Stuttgart.

WN: As one responsible for the Double Degree Program, what would you attribute the success of the program to?

Prof. METZGER: In the beginning there was only an idea, and then there were many steps which we had to constantly improve and optimize in order to get to where we are now; a high level. We can be very satisfied about how the program has developed so far. It was real team work, and everything depends on the strong commitment and idealism of the team members. I would say that our team is like a magnet that attracts people with the same line of thought. We like each other and we have worked very hard for this project to happen. I also think we have a very good chance to constantly improve ourselves.

Dr. NEUFFER: That's right. Another thing that probably attributes to success is that we also have teachers teaching in both programs, MAUI and WASTE, so they know how to deal with two cultures and how to manage the different types of Universities. We also have a close connection with the WASTE course directors Dipl.-Biol. (t.o.) Jessica Hahn-Ebner, and Dr.-Ing. Carolina Acuña Caro as well as the Dean of WASTE, Prof. Kronenburg. It's a very good team. We work together and we have one goal; to ma-

nage the Double Degree, and so a partnership has to be done.

WN: The advantages awaiting Brazilian students who go to Germany are clear. On the other hand, what do you think are the benefits awaiting the students that go to Brazil? What can they learn in Brazil that is different from Germany?

Prof. METZGER: In most international master programs (not only in WASTE and WAREM) we have a situation where we have a high percentage of students from foreign countries, I would say, usually more than 90%. On the other hand we have only a few German students. We should increase the number of Germans within the WASTE program by making the program more attractive for them. Arguments for a German student studying WASTE might be first of all the English language because it is the language of science and relevant publications are often in English. For German students planning to work internationally, it might be of an advantage to know the technical terminology in English and also to have connections to master students from other countries. To study in English, of course, requires more effort. Secondly, if we mention the Double Degree Program when we advertise the WASTE program and show that there is the opportunity for Germans to go to Brazil, then I imagine that more Germans would be interested in the WASTE program. Well, at least we have to assume this, since the program has only just started. If we succeed in increasing the number of German students, that will improve both programs, in our case the WASTE program, and also MAUI.

MARCELO: Maybe some students from Germany/WASTE can initially go for two weeks for a Specialization Course in Brazil so they can experience a little bit of the country.

Prof. METZGER: Yes sure, people from other countries might also be interested, if we had such a comparable two week Specialization Course („Fachkurs“) in Brazil, as we have annually in Germany, where selected students and lecturers take part. This idea is something to be developed further.

MARCELO: What I mean is that since in Germany we see “state of the art” technologies, in Brazil people can perhaps go and see what the problems are and how to solve them. So students would not just see the Itaipú dam and power plant, the waterfalls

and Rio de Janeiro, but also the real challenges Brazil is facing. This might possibly help students realize the importance of their studies, or that they can transfer and sell needed technologies as an international company. I have also noticed that Germans prefer to study in German, but many eventually end up working for international German Companies that make business with developing and emerging countries. So in the future they will end up working with these kind of issues. Almost all of the companies have businesses in Brazil, so this might be a good reason to do the Double Degree.



In the future, do you plan on making other partnerships with different Universities or countries? Or is it just with MAUI for now? The new partnership can be in Brazil or anywhere else in the world.

Prof. METZGER: Regarding Double Degrees WASTE/MAUI is the only project at present, but we have many co-operations all over the world in other fields of teaching and research. We have permanent contacts with other countries and we are also thinking of future projects. But at this very moment we think it would be best to concentrate on the Double Degree and on how to improve it; with the aim being bringing increasing numbers of students to Germany and sending more students to Brazil.

Dr. NEUFFER: We have to consider that WASTE has about 50 students in one course, so all in all not more than five students can be sent to Brazil. This has been agreed upon in the Double Degree agreement between the University of Stuttgart and the UFPR. So we have a limited number of places. We also need people to help manage the students, so the main focus for now is to concentrate on the MAUI-WASTE Double Degree Program and make the program more successful and attractive.

Paula Daolio Silveira
Student of WASTE - Generation 2016

GRADUATION CEREMONY 2016 - NOTHING ELSE THAN THE CHERRY ON THE TOP



WASTE Graduation Ceremony is the most important event of the WASTE MSc. Program. It represents the end of a cycle which implied hard work from students, teachers and administrative workforce. In this opportunity, the graduation of Generation 2014 WASTE Students was celebrated.

This year, the Ceremony was carried out on the 19th of November in the Stuttgart University Campus. People all over the world attended the event, including WASTE students from multiple generations, family members of graduate students, teachers, workforce and additional guests.

Lots of surprises were featured within the framework of the event, apropos, it was live streamed for international virtual attendees too.

The ceremony was divided in two main stages: official and unofficial part. Artistic performances, speeches, stories of the experienced, diploma ceremony and special acknowledgments were launched during the official part. International desserts table, dinner buffet, cocktails bar, folkloric performances, flash mobs and an international party mainly composed the unofficial part of this great occasion.

According to Ximena Loaiza, Class Speaker from Generation 2014, the event had a countless success. She highlighted the special moments during the official part that were particularly remarkable for her: the speech of the godfather from her generations. It was enjoyable for all attendees and briefly summed a huge compilation of memories that were lived during the WASTE experience.

Also the special recognitions for the best students and class speakers that were carried out in the official part, were particularly moving for Ximena. As she was one of the main organizers, she remarks the importance of excellent communication to successfully achieve a high quality event such as the Graduation Ceremony. She expects that in the future events, an International Buffet can be offered to the attendees to maintain the WASTE Intercultural Spirit.

From my humble freshmen perspective, the event showed the power of commitment that the WASTE community has. My small part for this event was the flash mob organization, which was a surprise for the new graduates. I somehow found the way to teach Latin dances to people from different cultures, thus, I enjoyed the experience to the maximum.

Once again the WASTE Family proved that the multiple cultures can reunite and celebrate the success through one of these special events. I can definitely say that the Graduation Ceremony was the „Cherry on the Top“ of the WASTE experience. Hopefully, we will have more of these delightful occasions in the near future!

Nelson Rincón

Student of WASTE - Generation 2016

Studying WASTE

DREAM BIG, CHASE YOUR DREAM, START NOW!

I have always been passionate about learning and enhancing my technical as well as my interpersonal skills. Since day one of my bachelors studies in the Faculty of Engineering at Cairo University, I have been an active member in student platforms, extracurricular activities and student organizations. I carried out my work on a voluntary

basis since I firmly believe that the experiences gained and skills developed far outweigh monetary payment.

Volunteering in student or youth organizations did not just help me to enhance and develop my skills, but also to achieve high grades in my studies through better

time management, setting of goals and priorities, hard work and self-motivation.

Furthermore, in my senior year, I was able to find my dream internship opportunity that I had been targeting for years. This internship was for a very well known multinational French -Swiss company operating in Egypt. I interned as an Industrial Ecology trainee, and this experience helped encourage me to pursue the WASTE program in Germany.

I would advise my colleagues and fellow waste students to consider making good use of their time by serving the community, and volunteering for global projects or even projects within their own University and study program. This would positively influence themselves as well as the global community.

„Whenever there is a WILL, there is a WAY“

Eslam Abdelraouf

Student of WASTE - Generation 2016



WELCOME EVENT 2016: SCHLOSS SOLITUDE - A WALK TO REMEMBER

I was lucky to meet some of my study colleagues during the intensive German course as soon as I arrived to Germany. However, the faces of most of the people who will be my partners during this WASTE journey still unknown to me. The first opportunity that I had to meet my new buddies was during the Schloss Solitude Excursion day!

Everything started with an introductory talk, given by the Course Director Mrs. Carolina Acuña. All the academic information about the WASTE MSc. Program was briefly presented and discussed. At approximately midday, we were all ready to depart to our excursion. Solar protection, along with fresh clothing and hydration were particularly useful in this late summer evening. I had two clear aims during this journey: First of all, manage to avoid fainting during the 4 hours walking, followed by learning the names and nationalities from all my new buddies. I can proudly say that I accomplished both of them, although the second one a bit more successful than the first one. I counted around 20 different languages and 30 countries during the first hour of walking!



Walking beneath the tree branches in a German forest during summer, is one of the activities that I would repeat until my legs stop holding me stand. The way to reach Schloss Solitude was across the forest behind the University Campus. Hidden lakes, noisy birds, spontaneous conversations and selfies were the main components of this journey. Our colleges from WASTE generations 2014 and 2015 also joined the excursion, thus, we had a lovely "Tips session" along with the walking. I like to think about it as having the chance to take a look at the future through the eyes of our experienced colleges.

Once we arrived to the Schloss Solitude, a group picture in front of the castle could

not wait, followed by a Picnic prepared for all of us. Everybody brought food to share with the others; I still wondering who genius who brought orange slices and I highly recommend them for further summer picnics.

The combination of flavors, languages, cultures, faces and landscapes made this an evening to remember. On the way back home, some people decided to take the bus and some others walked back home, of course I took the second choice!

The journey ended in the starting point, with a small difference: I probably met for the very first time some lifetime friends.

Nelson Rincón

Student of WASTE - Generation 2016

KLETTERGARTEN - THE SOMEWHAT DIFFERENT WIM EXPERIENCE

One of the most interesting and exciting WIMs in WASTE was going to the Klettergarten (Climbing Forest). It is basically a forest equipped with climbing walls, climbing challenges, slides from one tree to another and etc. The Klettergarten is located in Rohr and with the help of WASTE Club we all could afford a tremendously fun day acting like monkeys.

The day started super active for some of us, we rode our bikes from IFK to the Klettergarten with Dr. Vogt riding in the front and guiding us through Vaihingen and Rohr. The best part of the ride was the very steep slope of the Klettergarten entrance that we just glided on our bikes for 1 KM down the hill, and of course nobody thought for a minute about the ride back to the top of the hill later on.

We were taught by the trainees in the forest how to wear and use the safety belt, hat and the keys we were given and after a short test of our abilities, we were left to climb on our own.

The challenges were listed from A to D, A being the easiest and D being the hardest.

From nowhere I was super confident in my nonexistent sport abilities. I started to embark on a C challenge with my friends. It started with climbing a wall and afterwards going from one tree to another each time with a new route, such as walking on the rope or walking on barks of wood while hanging from a rope. Everything was going great until I reached a new challenge. In this challenge, I had to jump from one log of tree to another while they hang vertically and swing from right to left. In the middle of the challenge I was stuck on a log swinging from right to left with no way to continue or go back shouting „it is soooooo fun but seriously I am stuck, help!“. Any hard challenge was then accompanied with a slide, flying in the forest from one tree to another. All the activities and this kind of sport was all so new for me and worth trying, however the best part for me was spending it with my



friends, saying hi from one tree to another, encouraging them while they had no idea what should be their next step and making a memory that would last forever.

After 4 hours of being Indiana Jones, we head back exhausted to IFK for a relaxing evening. We barbecued, drank and got all of our energy back. For sure this WIM was one of the hardest WIMs to organize, but thank to dear Dr. Vogt, Mrs. Acuña and Jasmin we got to have this event in our colorful WASTE experiences.

Golnoosh Mahami

Student of WASTE - Generation 2014

Interviews

FROM SWEDEN TO GERMANY AS AN ERASMUS STUDENT

Christoffer Weber who has been living in Stuttgart for two months, is one of the Erasmus Exchange students. He is taking part in two modules of the WASTE Master Program at Stuttgart University. He is studying Master in Engineering in Nanoscience at Lund University in Sweden, but he decided to come to Stuttgart and study for one year. I had the opportunity to meet him and ask about his expectations and experiences in our University.

1.-Mr. Weber, what was your motivation to study abroad as an exchange student?

Well, I knew even before I went to university that I wanted to join an exchange program later on. For me, it means a break from the everyday life back in Sweden. Not because I do not like it but sometimes we need a change!

Here in Stuttgart, I am not only learning in school, but also, outside of school. I can learn about cultures and several different languages. That includes many useful lessons that cannot be taught in a classroom. In addition, most companies in my field have an international work atmosphere and to be having the experience in such environment is valuable for me.

2.- Why did you choose Germany and specifically Stuttgart?

Firstly, I knew that I wanted to go to Germany because I already had fairly good German skills, but that still needs improvement. Secondly, I wanted to be close to the center of Europe to have more traveling opportunities.

With all the big companies in the area, university and city events, Stuttgart seemed like a vibrant city, which I have never visited before. That made it appealing to come.

3.- Stuttgart University has more than 5000 international students. How was the process of adapting to an international environment? Could you tell some interesting experiences to us?

Actually it felt kind of natural. My home university has many international students as well and we have classes in both languages - Swedish and English. Additionally, I have traveled a lot and lived abroad so it was not a problem to adapt. But it is still very interesting to meet people from all



over the world and experience both our differences and similarities!

4.- What do you think about the modules and lectures in Stuttgart University? Are they similar in Sweden? Can you explain some of the differences?

The whole system with modules comprised of different courses is completely new for me. In Sweden, we only have courses and each semester is divided into two periods. The courses here are not as large as back home, which means I have to take more courses than I used to take.

It is too early to say which system I like more; however, I guess learning how to cope with different ways of studying is part of the exchange experience.

5.- Why do you choose to study 2 of our modules in WASTE Master program? What is your opinion about them? Have you had any difficulty to understand the classes?

That was purely a coincidence. I was not planning on taking these modules before I arrived but when my friends from WASTE program told me about the content; I realized that it could be useful for me. So far it is not too difficult but of course it gets harder as the semester proceeds!

6.- How could those modules contribute with your career in Sweden?

First of all, I am taking the modul-

es of Thermo – and Fluid Dynamics and Pollutant formation - Air quality control. My focus in nanoscience is towards nanomaterials but also the biological impact of nanoparticles in the environment. Nanoscience is a very up-to-date topic but the knowledge of damaging effects is insufficient. So that, I think the thermodynamics module is generally useful for anyone who wants to work with materials. In Air quality control module I hope to learn more about health hazards and environmental damage of nano- or microparticles.

7.- If you want to describe the WASTE Master Program in 3 words, what would they be?

Well, I would say: Interesting, Important and Fun!

8.-Finally, What do you expect about this exchange experience?

I will continue to improve my language skills, such as German and English and hopefully gain new skills in my field of study.

But most of all have a lot of fun and really enjoy this study year in Stuttgart!

Grecia Solis Castillo
Student of WASTE - Generation 2016

PROGRESS IN THE GREEN KURDISTAN PROJECT

In the last issue of the newsletter, the initiation of a new project of one of the WASTE students Rzgar Al-Bewani, Generation 2015 took place. The project is called Green Kurdistan Project and it is about reducing plastic waste in Kurdistan region, Iraq. The target of the project is to establish textile bags, so the huge amount of thin, non compostable plastic bags are reduced. Rzgar could find a group of students to work together in this project. The Green Kurdistan Project is now supported by the campus group (Hochschulgruppe) Umweltgewerkschaft. We are a group, who is working for a social and environmental development while organizing presentations, seminars and demonstrations about environmental topics in the university and in Stuttgart.

The project is still in a phase, in which we want to spread the idea and make more public awareness. We could manage to get some interviews for example an article about the project was published on the website of Studentenwerk as a study story. Thanks to Dilan Cakir who wrote the article and also collected more than 40 bags. Also a video was created by Ms. dos Santos Costa and spread via Internet. A meeting with Wiebke Wetschera from Filder Zeitung, a local issue of the Stuttgarter Zeitung took place and an article will be published in January.

We applied for a social engagement project "welt-weit-sicht" which is awarded yearly by the Ökumenische Zentrum (ÖZ). We are very lucky to tell you that we won the prize for the best project. The prize ceremony is taking place on 21st of December. Also we applied for the world citizen school, which is an educational project of the University of Tübingen to help students to start initiatives and projects in a social

and sustainable field.

In the future we want to establish some bag donation station, for example for events at the University and other environmental related events. People can bring their bags to an event as they did for the graduation ceremony 2016. Thanks to all the WASTE students who donated.

The plan is to bring the bags to Kurdistan to distribute it on the streets, in the markets and go to primary schools. People should get more information about the problems regarding solid waste management and how they easily can do something against it by not using thin plastic bags anymore. We already built a network of engineers and students in Kurdistan who already helped to improve the project and assured their help in the future. Rzgar is planning to do some scientific research about solid Waste management in Kurdistan as his Student Research Project or even Master Thesis.

If you like to join the group and help to

collect bags or just want to get some more information about it, you can contact us via Email info@waste.uni-stuttgart.de or rizgarbra@yahoo.com and like us on Facebook [https://www.facebook.com/ Green-KurdistanProject/?fref=ts](https://www.facebook.com/Green-KurdistanProject/?fref=ts).

If you have second hand textile bags, which you want to donate, please bring or send them to

WASTE Office
Pfaffenwaldring 23 (room 0.03)
70569 Stuttgart.

We appreciate all the support and positive feedback.

Rzgar Al-Bewani
Student of WASTE - Generation 2015

Laura Krautheimer
Hiwi WASTE Office, Member of Hochschulgruppe
Umweltgewerkschaft



Cultural Agenda

CULTURAL EVENTS IN STUTTGART



Die Schwaben – Zwischen Mythos und Marken

www.landesmuseum-stuttgart.de
22.10.2016 – 23.04.2017
Tu-Su: 10:00 AM – 5:00 PM
Price: 10,00 € for Students/
13,00 € for Adults
Exhibition of objects, photographs,

different kinds of guide tours, programs for children, cabaret, movie night, quiz-games, music and wine.
Location: Altes Schloss Stuttgart.

Oshii! Japan's food culture

www.lindenmuseum.de
16.11.2016 – 23.04.2017
Timetable: See website
Price: 8,00 € Students / 10,00 € Adults

Daily programation, movies, fests, workshops, discover japanese culture, foods and drinks.
Location: Linden-Museum Stuttgart.

OISHII!
ESSEN IN JAPAN

15.10.2016 – 23.04.2017
Linden-Museum Stuttgart



>>> UPCOMING CULTURAL EVENTS IN STUTTGART



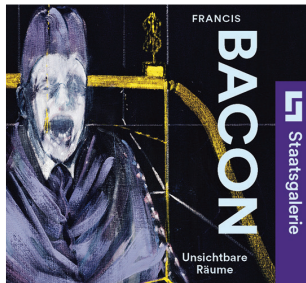
Photo: Frank Kleinbach, Stuttgart © Dieter Hacker

[un]expected – The Art of Chance

www.kunstmuseum-stuttgart.de
 15.11.2016 – 19.02.2017
 Tu-So: 10:00 – 18:00
 Fr: 10:00 – 21:00
 Preis: 8,00 € Students / 11,00 € Adults
 (including collections)

Location: Kunstmuseum Stuttgart

The special exhibition »[un]expected: The Art of Chance« reveals the significance of fortuity as an artistic force in art from 1920 to the present. Engaging chance in the making of art indicates a delight in the creative interaction between defined elements, materials, and found objects. In his frottage and collage works Max Ernst picked up on the aesthetic potential of chance.



Francis Bacon – Unsichtbare Räume

www.staatsgalerie.de
 07.10.2016 – 08.01.2016
 Tu-Su: 10:00 – 18:00
 Th: 10:00 – 20:00
 Preis: 12,00 € Adults / 10,00 € Students
 inc. Collection
 Price: 14,00 € Adults / 12,00 € Students
 inc. Collection and exhibition

Location: Staatsgalerie Stuttgart

Focus on a central aspect of the work of Francis Bacon (1909 – 1992) – one of Britain's greatest modernizing painters

Life after WASTE

MUCH MORE THAN A MASTER, IT IS A WHOLE NEW LIFE

I am Alfonso Vidal, from Chile and a student of WASTE Generation 2011. . Whilst in Chile, I got to know about the MSc WASTE program thanks to the promotional tours that Stuttgart Universität carries out in South America... On one such tour, the ex-Course Director Dr. Ulrich Vogt had brought a former Chilean WASTE student called Carolina. They had invited me to join this environmental masters program and thus become part of a very beautiful community; the Family of WASTE. Nowadays, Carolina is the current WASTE Course Director... what a small world.

In this newsletter article, I will share with you my experiences as student, alumnus and community member of WASTE.

The arrival in Germany was shocking to me. Especially if you consider that, my German skills went only as far as being able to say: "Ich bin Alfonso" ...sometimes even forgetting the "bin". On the first day, during a meeting with the director I met my first friends: Grace, Marce and Xiao Long. From that point onwards, every day was full of new experiences, shaped by meeting people from all over the world with different habits, languages, hobbies, and background studies. Surprisingly, I discovered that between Spanish speaking South Americans, communication was not always easy and sometimes even confusing, albeit having the same language. I also learned that Chilean people speak with an accent.

However, as the title of this article states, I was discovering a new way of life.

Along with friends like Sinda, Ginna or Dennis, I started doing what might be considered incredible back in our home countries. We woke up (sometimes before classes) and went jogging in the university forest, we cooked typical food from our countries with our neighbors every week, and above all, we bonded. I would like to share with you the story of Ginna González, a colleague from my generation. She came from Bogotá, Colombia and besides the master; she is accomplishing so much more.

Ginna is a great sportswoman. If you ask our friends from Waste, „What does Ginna do?“ They would answer, „She swims!“. Ever since she was a child she swam in her home country, even in its national league, with her main technique being the 200m breaststroke.

When she came to Germany, she wanted to be part of the university swimming team, but since there is none; she took swimming courses offered by the Hochschulsport to practice her passion. . This was not always easy; the swimming pool was not close to university, the course finished very late night and in winter, snowy weather made it even harder to return home. Nonetheless, none of these challenges dampened her determination to succeed.



She represented Stuttgart Universität, along with other students in the university competitions in Karlsruhe, but sadly, a back injury did not allow her to perform properly. To celebrate the 50th anniversary of the swimming pool in which she trained, a 12-hour long marathon competition was held. Ginna keenly participated in this event, despite not yet being fully healed from her back injury. Her goal was to swim 10km during the time 7:00am till 7:00pm. Competition day was on the 28th of February, 2014, and I was able to be with her throughout the marathon... I helped in the logistics: food, hydration, and most importantly cheering! By midday, she had already swum her 10km goal. By the end of the competition, she had swum an impressive total of 25,8km, thus even surpassing male swimmers and taking the winning title. A newspaper called Stuttgarter Zeitung had published this story.

With high morale, Ginna started to realize that swimming marathons are more frequent than she thought, and she soon found her next challenge: a 24-hour marathon. She had to train seriously; 3 to 5 times per week. The WASTE masters course was already finished and a part-time job allowed her to have the enough time for training. Her back injury also needed to heal. She spent 2 years trying to find one such marathon, until finally, she did. In Waiblingen, on the 22nd of July a 24 hours marathon, from 7pm Friday until 7pm Saturday was held.

This time logistics were harder. She had to arrive there sufficiently rested to be able to swim for that long. Food was another problem, especially during the night when you should keep the temperature of your body. The swimming pool was outdoors and the weather was cold on that day. In the end, they "just" swam for 23,5 hours since the competition had to be suspended for 30 minutes due to a thunderstorm. Nonetheless, her perseverance, prompted her to continue swimming despite the cold and the rain. The swimming pool had a live stream to follow the competition over internet. Thanks to this, friends and family on the other side of the world were able to follow her and write her encouraging messages, which she read while resting. In the end, she swam over 49km (to put this into perspective, a regular Olympic marathon is a little over 42km). Ginna ended up winning the women's category (including the setting of a new record), and overall second place in the general competition. Congratulations to our colleague!!! To accomplish this, Ginna only rested for less than 3 hours throughout the entire marathon. After that, a team of professional swimmers contacted her to be part of their team. More info regarding this competition can be found in the newspaper Waiblinger Kreiszeitung. (http://www.24hschwimmen.de/wn/2016/Artikel/WKZ_2016-07-25.pdf)



Ginna is proud of her trophy and medal.

Nowadays Ginna is thinking of swimming in a 60km marathon. We wish you luck.

Ultimately, beyond intellectual development, the WASTE course also promotes personal and social self-development. By organising welcoming parties, graduation ceremonies, football tournaments, trips to historical places, grills between generations and alumni, WIMs, and many more activities, our masters program promotes interaction and support between WASTE students.. Through WASTE, one gets to meet and know many wonderful people. Taking my story as an example, I met Ginna, and as of 27th of September 2014, Ginna and I are happily married!

Alfonso Vidal
Alumnus- Generation 2011

INDUSTRIAL WASTE WATER TREATMENT WITH VACUUM DISTILLATION

I belong to the 3rd generation of WASTE program and specialized in the areas of solid waste and waste water treatment. My background in chemical engineering together with the WASTE program gave me the tools I needed for my professional development. Since 2007, I have been working as a Project Engineer at the German company H2O GmbH.

H2O GmbH specializes in the treatment of industrial waste water through vacuum distillation systems. Vacuum distillation is one of the most economical methods for the treatment of industrial waste water. As the waste water volume drastically gets reduced, the disposal costs associated with it gets lowered as well. The treated water can be reused in the production process creating a zero-liquid discharge.

The use of vacuum distillation systems for the treatment of industrial waste water has proven to be successful in different industrial applications. Some of these applications include the automotive industry,

aerospace industry, mechanical engineering, the household device and electrical industry, and disposal companies from the recycling industry. Wastewater such as used coolant emulsions or rinse water for cleaning or electroplating can be cost-effectively treated.

The technology is based in the principle of separation due to different boiling points. The industrial waste water is evaporated at a low pressure. The substances with a higher boiling point than water, such as heavy metals, salt, fats and oil, remain in the residue; while the emerging vapor, which is almost free of impurities, is condensed and reused in the customer's process or disposed into the sewer.

The use of direct vapor recompression and the recycling of energy within the system, results in an energy efficient tech-

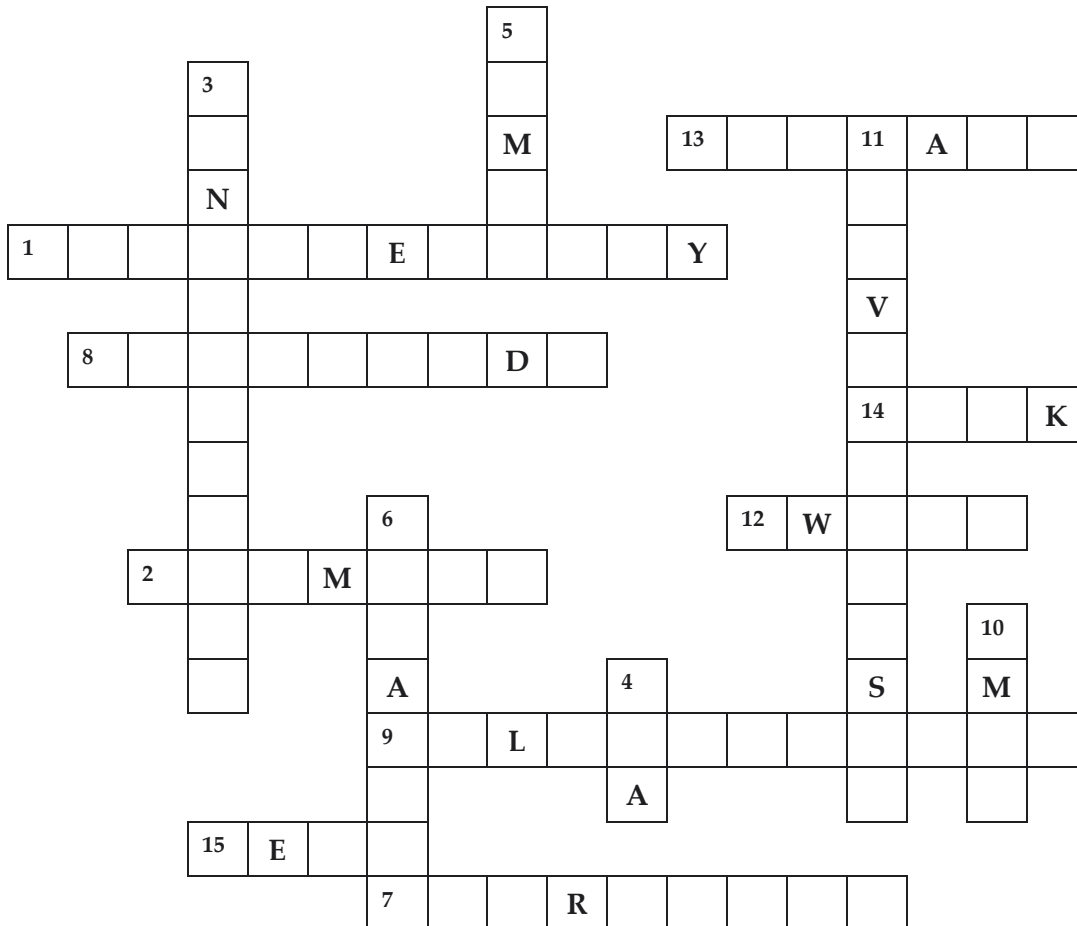


nology. The VACUDEST vacuum distillation systems achieve 95% reduction in energy consumption. This in comparison to atmospheric evaporation has reduced cost and contributing in this way to the reduction carbon footprint.

Gloria Chávez García
Alumna- Generation 2004

Fun with WASTE

CROSSWORD



Across:

1. The genetic, species, and ecological diversity of the organisms in a given area.
2. The total mass or weight of all the living organisms in a given population or area.
7. Rivers and lakes rich in organisms and organic material.
8. A chemical that kills fungi.
9. A process in which mineral salts accumulate in the soil.
12. Wetland with trees.
13. A bay or drowned valley where a river empties into the sea.
14. Probability that something undesirable will happen as a consequence of exposure to a hazard.
15. Deposits of moist, acidic, semi-decayed organic matter.

Down:

3. The aggregation of water molecules from vapour to liquid or solid when the saturation concentration is exceeded.
4. The long, double-helix molecule in the nucleus of cells that contains the genetic code
5. Sticky, brown, insoluble residue from the bodies of dead plants and animals
6. An organism that lives in or on another organism, deriving nourishment
10. Combination of smoke and fog in the stagnant air
11. Those who believe that some fundamental ethical principles are universal and unchanging

Recent Events

AND THE DAAD- AWARD GOES TO...

Ms. Golnoosh Mahami student of Generation 2014 M.Sc. WASTE: winner of the DAAD-Award for foreign students with outstanding performance at German Universities.

Each year the German Academic Exchange Service (DAAD) confers the DAAD-Award to foreign students with outstanding performance at German Universities.

With this award a foreign student shall be distinguished, who is carrying out his/her first degree or is attending an advanced stage of his/her Bachelor program (at least in 2nd or 3rd year) or Master program (at least in 2nd semester). The candidate stands out for his/her academic achievements as well as for his/her social or intercultural engagement. The award winner must be enrolled at the University of Stuttgart in a regular semester as foreign fulltime student. The prize consists of 1000 Euro.

The award is conferred during the first semester evening "Avete Academicici" with the presence of the rector Prof. Dr.-Ing. Dr. h.c. W. Ressel and important authorities of the University of Stuttgart. This year the winner was Ms. Golnoosh Mahami student of our Master Program WASTE from Generation 2014.

Ms. Golnoosh Mahami has not only shown an outstanding performance academically, but also her commitment with her fellow students being one of the class representatives of her generation. Within this frame, she actively participated in the organization of WASTE Intercultural Meetings (WIMs) and supported the WASTE buddy program as well as the WASTE Office during the whole period of her studies at the University of Stuttgart. Therefore, we

would like to thank Ms. Golnoosh Mahami for her continuous engagement with our Master Program and great work along these two years.

We warmly congratulate Ms. Golnoosh Mahami for this deserved achievement and we wish all the best for her future.

Dr.-Ing. Carolina Acuña Caro
WASTE Course Director



Traveling around Europe

MY TRIP TO BARCELONA (SPAIN)

Freiheit (freedom) is a word that helps describing someone who loves traveling like me.

I was lucky enough to have chances to experience traveling many times. There was a place which has called my attention due to its architecture and for the cultural traces impressed in its architecture and people. This place is called Barcelona in Spain. And it rings me a bell.

Fortunately, I could've experience the Spanish culture several times, and while still in Brazil, when I studied Spanish.

In 2014 was the first time I visited Barcelona and its enormous architecture. Barcelona it is not far from Stuttgart, so it takes almost two hours by plane to get there.

Barcelona is a big city with an area of 101,4 km² and 1,602 Million of inhabitants, it is well known by the already mentioned architecture, also because of its peculiar language called Catalan (About 11 million

people in Spain live in the Catalan language area), even though Spanish is another official language of the city.

Barcelona is a beautiful place to visit, to enjoy the mid-warm weather, well developed in the collection of the urban waste and waste management and also in the transportation area, there many buses and trains, almost all day at one service.

Seizing the opportunity of the public transportation, I have been to some places inside and outside Barcelona. There are many touristic places to visit as beaches, churches, parks and much more.

In my opinion the symbol of Barcelona is the architect Gaudi. He is an important figure of modern architecture. His constructions are spread around the city and obviously as his soul. For instance of his works, are the Casa Batlló and the Casa Milà. For this reason, I would mention that Barcelona is a young city and with an active night life.

The first place I would recommend a vi-
>>> continues



>>> MY TRIP TO BARCELONA (SPAIN)

sit it is called Sagrada Familia. Sagrada Familia consists in a cathedral that is still being built by a group of architects.

Gaudi joined the working in Sagrada Familia in 1883 until 1926, he worked for 43 years on the temple. Sagrada Familia was idealized as the Temple of the Holy Family, a campaign was started for building the Expiatory.

When Gaudi took over the project in 1883 he abandoned the Neo-Gothic style and started with some innovative and modern architectural ideas.

A visit to the temple takes on average at least 2 hours. There is also a museum under the expiatory, it is possible to buy tickets for the visitation online, avoiding long queues at the main entrance.

Among the many places to visit, these two worth a visit; Parque La Ciutadella and Arc the Triumph. Basically these two attractions are in the same location, one just have to walk few meters to visit.

Arc the Triumph is a monument built in 1888 to be the main access for the Barcelona World Fair. The front part contains the stone sculpture "Barcelona rep les nacions" (Barcelona welcomes the nations). The opposite side contains a stone carving entitled "Recompensa" (Recompense).

The Park la Ciutadella count with the Zoo of the city, idyllic fountains, Catalan Parliament, Museum d'Art Modern and also a Geological Museum, along with some modern buildings on the west side of the park. Being for sure a nice environment to relax and enjoy the nature of the region.

The beaches are a must in Barcelona, and there, it is easy to realize a cultural trace of the place. The most famous beach is Barceloneta, but there are many others such as Bogatell and Castelldefels. Where one can enjoy kilometers of tempting sand.

Still around Barcelona it is possible to visit a place called Castle of Montjuic. Castle of Montjuic is 173 meters high in a mountain. Nowadays it is a Museum,

but for several years it was a military prison. From the Castle of Montjuic, it is possible to see the port of Barcelona and also some beaches, with a pleasant overview of the sea and the city. One could have a special impression and sightseeing of the city visiting Castle of Montjuic, with a plus of visiting some parks around, a botanical garden and many other attractions around as The Fira of Montjuic.

Going a little outside Barcelona, I indicate a place called Montserrat. Montserrat is a mountain of a system of mountain ranges running parallel to the Mediterranean Sea coast in Catalonia. The name Montserrat stands for "serate mountain" due to the shape of its different rock formation. For those more adventurers, it is possible to reach the top of the mountain 1,236 meters high, by hiking and climbing. For those not so brave and with not too much spare time, there are kind of slope called "Funicular" and also a cable car that helps shorting the journey. There are some sanctuaries, a museum, lots of tracks, sightseeing and a monastery.

Montserrat is definitely a place that worth a visit and it is located about one hour and a half from Barcelona main Station.

Almost last, I highly recommend Tarragona, which is a city about one hour from Barcelona. It is a calm place with some interesting points to visit, as the Cathedral of the city, that turns out to be a museum with a range of ancient artifacts, paintings and splendorous rooms. Also around Tarragona, one can visit the old city (there's an old city in Barcelona also called Las Ramblas) with peculiar architecture. Tarragona counts too with a heritage site called Amphitheatre and several beaches to explore. So if one has a day to visit exceptional beaches and ancient places, Tarragona could be a impressive choice.

For the last recommendation but not least, I would like to talk about a restaurant called "Cal Pep", this restaurant was a recommendation of my friend Katherine (also a student of the WASTE program). The food is out-



standingly delicious and the atmosphere is incredible. For sure it is also worth a visit, but I would recommend one to reserve a table beforehand to avoid long waiting. Which is also completely worthwhile, I must say.

Visiting Barcelona is without doubts an interesting and renovating experience; it is a colourful and very well shaped city. There are many places to visit and a lot of cultural events happening around, and for those who likes architecture and movement it definitely worth a visit.

Francine Lima de Souza
Student of WASTE - Generation 2016

WASTE NEWS

NEWSLETTER OF THE INTERNATIONAL STUDY PROGRAM WASTE AND THE WASTE CLUB STUTTGART E.V.

PUBLISHER
ULRICH VOGT

CONCEPT
MICHAEL WALDBAUER, KENG BEEN ANG,
CHRISTINE DOS SANTOS COSTA,
STUDENT TASK FORCE 2006 AND 2007 OF THE WASTE PROGRAM

DESIGN AND PRODUCTION
LAURA KRAUTHEIMER, RICARDO DIAS,
ANDRÉ MAFFERTI, SOFIA ENGELMEIER

AUTHORS
SEE ARTICLES

PICTURES
RESPECTIVE AUTHORS OF THE ARTICLES AND WASTE OFFICE
MASTER OF SCIENCE PROGRAM „AIR QUALITY CONTROL, SOLID WASTE AND WASTE WATER PROCESS ENGINEERING“ (WASTE), OF THE UNIVERSITÄT STUTTGART AND WASTE CLUB STUTTGART E.V.

ASSOCIATE DEAN FOR GRADUATE STUDIES
PROF. DR. ANDREAS KRONENBURG

CONTACT
WASTE OFFICE
UNIVERSITÄT STUTTGART
PFAFFENWALDRING 23
70569 STUTTGART
GERMANY

INFO@WASTE.UNI-STUTTGART.DE
WWW.WASTE.UNI-STUTTGART.DE
TEL: +49 (0) 711 685 68291
FAX: +49 (0) 711 685 68277

