

THE NEW STRUCTURE OF THE M.Sc. PROGRAM WASTE

Based on the experiences with the M.Sc. Study Program WASTE in the first years and the introduction of the European Bachelor/Master system in Germany, the WASTE program will have a different shape from winter semester 2008 on.

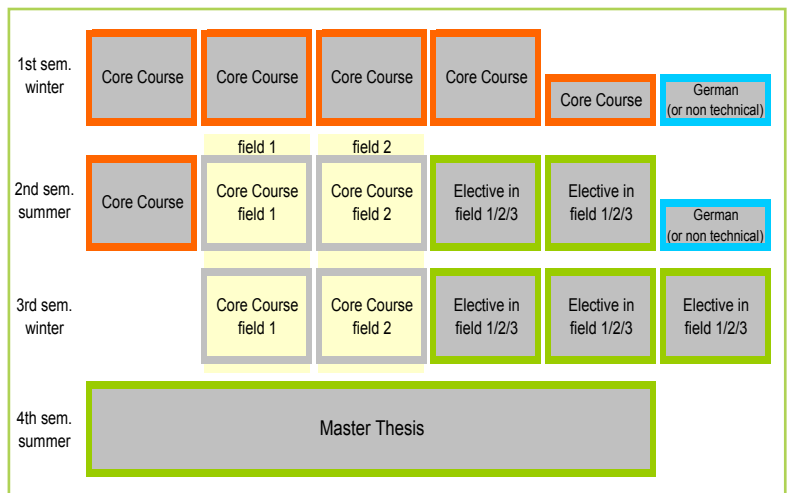
The major change affects the duration of the Program: It will be extended to four semesters. The scientific and technical contents will stay the same or be deepened, so that all existing courses will be part of the new program but new lectures will also be offered. Similar to the past years, students have to choose two of the three fields Air Quality Control, Solid Waste and Waste Water.

More flexibility in the individual study plans will be made possible through the new modularised structure. Also the new structure will allow an extended implementation of soft skills and scientific methods in the curriculum.

Students have to take part in an intensive German language course, which will begin in September, before entering the study program. There will be no pre-courses or entrance examinations anymore. Each year in winter semester (September), a new generation of WASTE students is going to take up their Master studies.

The application deadline will be on 15 February of the same year. We hope and think that the new structure will give students more time for adapting to our learning environment, and deeper insights into the many interesting aspects of environment related process engineering.

• Michael Waldbauer



MY MASTER THESIS AT BASF

I started my master thesis 5 weeks ago. When I began to study the WASTE program I did not imagine that 16 months later I would be doing my thesis in a German company, to be exact at BASF in Ludwigshafen. But I am, and it has been a very good experience so far.

At the end of last year I started to look for a theme for the thesis. I wanted to do it in a company, so I began to talk with professors who could give me some ideas about where to apply. It is always stressful to search for the right company, business area, topic, location, etc., but with a little patience and perseverance it is possible to achieve your dreams.

When I just started I was very nervous, I think any change brings some stress, but within a few days I got adapted to my new life. I have found nice and kind people, and the colleagues at

BASF are always willing to help and make things clear to you.

I think that the experience of "working" at BASF will be full of challenges, but I will learn a lot, as I have been, for the last five weeks. This is an opportunity that will show me the inside of a company, the German way of working and accomplishing goals. I am sure in the future I will be able to apply all the knowledge that I will acquire during the coming months, new tools and ways of thinking, which will be helpful not only in my professional life, but also as a personal life experience.

I still need to go for five more months, but hopefully things will continue going in the right direction and maybe in the future, the experience that I am living right now will help me to find a good job and to start a successful professional career.

• Tahnee Gonzalez



Studying WASTE

I AM STUDYING WASTE, BECAUSE...

... I can't stand the suffocation by plastic, the fresh waterways that have become putrid and the brown air that we are obliged to breath.

• Nadira Khawaja, Pakistan

... it's time to start making a sustainable world and stop compromising our future.

• Eva Carranza, Venezuela

... I want to co-relate biotechnology and pollution control technology.

• Subhanwita Ghosh, India

... I want to apply new technologies for disposing waste in my country.

• Chintan Vaidya, India

... I identified in this M.Sc.. Program the lectures that best fulfil my expectations in the Environmental Process Engineering area.

• Ricardo Cardoso, Brazil

... I want to move forward.

• Karen Mouarkech, Lebanon

... of my great interest in the field of Environmental Engineering.

• Ngoka Austin Chinedu, Nigeria

... it is a nice way to meet new people from around the world

• Anupam Srivastava, India

... in industries as a Chemical Engineer, I have experienced that the effluents and the by-products of the manufacturing processes are disposed off into the environment; I would like to find better ways to make the disposal much more environmentally and sociologically acceptable.

• Harneet Bhangu, India

... I want to perfect my knowledge, perfect my life.

• Wang Pu, China

... I care about the world that I am living in.

• Reka Tittesz, Romania

... I believe that in this way, I can contribute something to this world that my children's children will be thankful of in the future.

• Ria Marni Tubaon, Philippines

... I want to improve my knowledge in Air Quality Control and try to develop products or processes in my family business of Air Cleaning Processes, and to be able to improve Internal Environment Quality systems.

• Eduardo Cruz, Mexico

... I want to get a step ahead in my endless journey to knowledge.

• Pavel López, Colombia

... I want to be part of the solution, and understand the basic and theoretical concepts; copying technology and regulations from developed countries is not enough for my country.

• Gloria Patricia Galindo, Columbia

... environmental pollution control and management has become a serious problem in Nigeria, especially in the oil and gas region, and needs to be abated by.

• Bayode Olusegun, Nigeria

... I love life without contaminants and I would like to live more.

• Carlos Albeiro Pacheco Bustos, Colombia

... of the dedication to a cleaner environment, to improve the existing environmental factors which cause severe threat to people and other organisms.

• Zia Khan, India

... it was related to my interest in environmental engineering.

• Tin-huan Lin, Taiwan

... it teaches us Ways About Saving The Earth.

• Kim Jung Han, South Korea

... Nigeria has environmental problems and I want to contribute my own quota in solving the problems.

• Ayoola Olugbenga Ademola, Nigeria

to make the disposal much more environmentally and sociologically acceptable.

• Harneet Bhangu, India

... I can learn a lot about waste managing techniques here, which can be very useful for my home country; additionally, I can learn about German high technology in processing waste.

• Karen Rahadi, Indonesia

... I want to live on a cleaner Planet Earth!

• Cesar Aleman, Honduras

... I am sure it is possible to have great development for humanity without damage to the environment.

• Luis Eduardo Castillo Meza, Columbia

... I want to help implementing environmental friendly technologies in both industrial and social fields in order to keep our planet clean.

• Karlheinz Schibinger, Germany

... I want a better future; I liked the WASTE Master and found it interesting and having a Master, I think I will find a better job.

• Natalia Tziveni, Germany

... Germany is a world wide leader in this aspect; in this program my interests are completely represented and I want



... I am not on Earth to waste my time.

• Mariana Voltolini, Brazil

... I want to be amongst the people who are able to find sustainable development between environment and human activities.

• Diego Salamanca Velandia, Colombia

... it gives me the opportunity to study my desired profession in an international environment with people of different cultural backgrounds.

• Fabian Delong, Germany

... in industries as a Chemical Engineer, I have experienced that the effluents and the by-products of the manufacturing processes are disposed off into the environment; I would like to find better ways

to use all acquirable skills in my home country, where we have a lot of environmental problems.

• Natalia Alejandra Uscátegui Ruiz, Colombia

... the most promising interdisciplinary approach addressing the ultimate threats to environment, specifically in reference to developing countries.

• Adnan Iqbal, Pakistan

... I want to use my engineering skills for leading a fight for improved environmental quality and in turn for an improved life.

• Canan Turgut, Turkey

... I want to protect the environment as an engineer.

• Bong Yong Lee, South Korea

... I care.

• Carlos Azucena, El Salvador

News and announcements

THE CLASS REPRESENTATIVES OF THE NEW GENERATION 2007

Hello, my name is Carlos Azucena, I come from El Salvador (the tiny one!). I was born in 1980 and studied Chemical Engineering. My home is far away, but the problems we have every time seem more familiar to all of us. Solid waste management problems, contaminated rivers, polluted air, are the common factors. I came here because, perhaps, more than having excellent skills in environmental issues after the master, I will have hope. And that, my friends, I think, is what moves the world. I want you to pay attention, look closer to your neighbor, we all may have different ways to express hope, but we all have it. Our learning has to have one meaning, help the others, improve the quality of life of our brothers in our respective countries, but, improve the equilibrium and balance with nature, that's a serious commitment,



and if there's anything I can help you, I am at your service my friends. Remember, we all are ambassadors of our families, our teachers and our society, let's show them we can make the difference. When we come back we will be "transporters" of hope.

I'm Eva Carranza, I was born in Maracay (Venezuela), and I'm 23 years old. I studied Chemical Engineering at USB in Caracas and then I started working for an Environmental Consulting Company, where I realized how important and fragile our environment is, and how mankind has made it worse everyday. This is why I came to study WASTE: I believe that I can be a little part of a solution in a problem that concerns us all. So I came to take the examples from a develop-



ped country in the area to later on adjust these policies to my home country. As most of you already know I'm here anytime for anything you need that I can help you with. I want to thank you all for making this a fantastic experience that I know we'll remember always. And I want us to enjoy the opportunity of learning other cultures (German and the ones from all our classmates), because this is a one-time offer that we should really appreciate, so let's have great time studying and sharing moments together.

And most important, let's remember that the pre-courses are over, so it's time to study a lot, because our grades here will make a difference on our future career life. After we finish, I want all of us to teach in our countries that if a better world is possible, then the way that we have it now is not good enough.

• Carlos Azucena, Eva Carranza

DIFFERENT APPROACHES TO OBTAINING A SCHOLARSHIP

Ministry of the Environment Baden-Württemberg: After the euphoria of getting admitted in the WASTE program, there was only one uncertainty left, how to pay my expenses for almost two years in Germany. In Brazil there are just few scholarship offers for Master degree studies. I could find three institutions: the Ministry of the Environment Baden-Württemberg, the KAAD and a public research foundation from my state (FAPERGS). Along the application process, I realised that these institutions demanded some similar requirements, like recommendation letters from professionals or educators, motivation letters showing my interest in the WASTE program, official university transcripts and respective translations. Having these documents in advance was a good strategy to avoid rushes near the deadlines. Moreover, I feel that what may have helped me to succeed in this process were my good final university grades and some additional activities, such as work experience at the university, in private and public companies. Regarding the deadlines, all of them were different, but, for those who are trying for financial assistance, it

is a good idea to start looking for options more than one year before the beginning of the program of interest. The whole process requires a lot of work and time, but after knowing that you are going to be awarded, you definitely feel that the efforts were worthy and, after all, it is all happiness.

Siemens AG: offers a scholarship for a foreign Master student. Only the responsible of a Master program of one of eight selected German universities can recommend a student to apply for this scholarship. Especially, for this scholarship the contact with the coordinator is required. I had this offer by email from Dr. Waldbauer after I got admitted to WASTE. I applied for the scholarship on 24 August and had the result on 6 September. The important requirements for this scholarship are a 'Letter of motivation', a resume, B.S. degree certificate, and two recommendation letters from the home university. There was no special format for the 'Letter of motivation' and the resume. Further information can be found on the following web site: www.siemens.com/generation21/university

• Mariana Voltolini, Bong Yong Lee

WASTE MOVIE NIGHT

The WASTE Movie Night is a new activity of the WASTE Club introduced by the 2007 generation. The event is mainly dedicated to WASTE students, lecturers, and other guests. Members of the WASTE family will have the chance to meet once per month and watch movies or documentaries with an environmental background. The movies will display different themes that aim at increasing students' knowledge and raising more questions to themselves. How are we affecting global warming? Should we shut down nuclear energy plants? How far should we keep our environment and health getting deteriorated in behalf of economy's growth? And many other questions that would give students the chance to discuss the presented facts and assess the need of acting towards a more sustainable environment.

• Karen Mouarkech



DATES TO NOTE

- Waste Intercultural Meetings "WIM" at 5.30 p.m. on 5 June, 3 July, 6 Nov., 4 Dec., 15 Jan., 12 Feb. (IVD, room V 23.01)
- 15 June: 1st semester excursion to Waste water treatment plant Mühlhausen
- Waste Movie Night on 19 June and 17 July (IVD, room V 23.01)
- 12 July: Waste Summer Party
- 11-12 Oct.: WASTE Club Excursion to Bad Säckingen (Rheinfall, Hydropower Plant, Musical...)
- 22 Nov. Graduation Ceremony 2007
- WASTE Club Excursion to Mercedes Benz Museum: Winter semester 07/08

Recent events

THE INTERNATIONAL ENVIRONMENTAL DAYS IN FREIBURG

The International Environmental Days for this year took place from 12-15th April in Freiburg, coinciding with the 550th Anniversary of Albert-Ludwigs-Universität. As a part of the programme, the students of the M.Sc. Program Environmental Governance (MEG) held a very interesting event on 'The Role of Individual Leadership in Environmental Governance' with international key note speakers representing UN, private sector, NGO and research perspectives. The MEG Students also organized a poster contest, about people in their 16 different home-countries who had shown leadership in environmental issues. The poster contest winner, Gao Ya, was rewarded for presenting a photograph who revealed water pollution problems of a small village in China.

Four WASTE students attended this inspiring forum. The first day saw the vivacious H.E. Ambassador Raúl Estrada-Ouelo from Argentina sharing his experience of moderating the complicated process that resulted in the Kyoto Protocol and giving valuable 'tips' on ways of bringing diverse and often conflicting views together. He emphasized the importance of truth, knowledge and optimism in negotiating for envi-

WELCOME, PROF. STEINMETZ

With the beginning of this summer semester, Prof. Dr. Heidrun Steinmetz has started working as researcher and lecturer at the Universität Stuttgart. She took over the Chair of Sanitary Engineering and Water Recycling at the Institute for Sanitary Engineering, Water Quality and Solid Waste Management in January 2007 and is now lecturing on Wastewater Technology for the WASTE students.

Heidrun Steinmetz was born in Munich in 1962 and studied biology at the University of Kaiserslautern. Subsequently, she worked there as a scientific assistant from 1990 to 1996 in the department of sanitary engineering and received her PhD (Dr.-Ing.) in the year 1996 for a study on the oxygen transfer in mixed liquor. After three years of industrial occupation in the field of process and systems engineering and three years as head of the planning department in an engineering company, she



returned to the University of Kaiserslautern. She held the position of managing director in the Centre for Innovative WasteWater Technologies (tectraa) until her departure for the Universität Stuttgart.

Her research is mainly focussed on sustainable concepts for closed water and nutrient loops, the integrated planning and operation of the sewer system and the wastewater treatment plant (WWTP), optimisation of WWTP operation through the use of innovative measuring and control technologies, the sequencing batch reactor (SBR) process, and information visualisation. Heidrun

Steinmetz is a member of the Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall (DWA) technical committees ES-2 "Systems planning", KA 6.2 "SBR processes" and KA-1 "Innovative/alternative sanitary systems", as well as member of several national and international technical organisations.



ronmental enhancement. Sir Mark Moody-Stuart from UK, who had been chairman of Shell and has a lead role in forming and propagating the UN Global Compact (that seeks to promote responsible corporate citizenship), stressed on the need to harness

the creativity and positiveness of markets in delivering environmental solutions. He also pointed out the joint role of government, civil society and business in environmental governance.

The second day included a stirring speech by Dr. Vandana Shiva from In-

dia who is Managing Trustee of the Navdanya Trust and a leading activist. She shared many examples of leadership in poor communities having faced the brunt of environmental degradation, and of the 'creative courage' of the people which had enabled better forest management and reduced commercial mining of ground water in India. She pointed out the dependence of human life on biodiversity and cautioned about genetically modified foods and organisms (GMO), impact of trade agreements on the poor and climate change effects. The last keynote speaker, Dr. Elinor Ostrom, a professor at Indiana University in the U.S., presented findings from in-depth research carried out on elements of grass-root environmental movements and groups in developing countries. Whilst the research findings were not as captivating as the personal experiences shared by the earlier speakers, they provided a necessary analytical framework.

This event was not directly connected to environmental engineering but it was valuable for WASTE students to take a glance at the role of governance in environmental protection.

• Eva Carranza, Nadira Khawaja, Bong Yong Lee

WASTE ALUMNI: WITH UNIVERSITÄT STUTT GART AT EUROPOSGRADOS MEXICO 2007

On Wednesday 28 March, 2007 Universität Stuttgart presented its international Master of Science programs at the "Europosgrados" Fair in Monterrey, Mexico. Exhibitors from Europe gave information about studying in Europe to undergraduates and graduates from Monterrey's universities.

I was invited to participate at the stand of Universität Stuttgart to give some first hand information about studying in Stuttgart. The fair was a success, with more than 1500 visitors. I had the opportunity to share with them some of the marvelous memories from the time I spent in the Universität Stutt-

gart, and encourage them to study abroad. For the most part, people were interested in learning about the culture, international



environment and attractions that Stuttgart has to offer. Some of them asked how hard it was to learn German, or how much someone spends in a month. But I reassured them that the most important thing was

the experience itself, because the people that you meet and the friends you make are going to stay in your heart forever. If I could do it again, I would. But not only the visitors learned about Stuttgart, the exhibitors also experienced Monterrey with regional cuisine at "El Rey del Cabrito" (where the specialty is baby goat), and a salsa night at "Scandal".

Not only was the fair a success, also our beloved stand. We received the price for the best German stand. We wish that the people enjoyed it as much as we did. I want to thank Dr. Waldbauer for inviting me to participate in the fair. Greetings from Monterrey! Please come back soon! • Yatzi Rodriguez

WASTE WATER EXCURSION

During one of our second semester lectures, given by Dr. Stotz, we were asked to design a sewer system which would also include the design of a storm water tank, pipes and eventually a waste water treatment plant in a small town in Germany. As we started working on that project, we all started to realize how much work and design parameters needed to be included. And one day the WASTE Master Program organized an interesting excursion to the sewer system in the city of Stuttgart.



We met at the U-Bahn Station called Neckartor and from the very beginning it became one visit to be remembered. The people in charge asked us to wear some special clothes, but this time, the usual 'Excursion' clothes were not including only a helmet and safety glasses, but they also included a 'space' suit (see picture) which had the purpose to keep our clothes clean, rubber boots and a security belt, not to mention the hand lamp and the always present helmet.

And so we came out to the streets, following a group of guides who would take us deep into the darkest places in Stutt-

gart. As the pedestrians stared at us with funny and wondering looks, we started joking about the things we were about to see down there at the sewer system. We were worried about getting so sick of the odors and the things we were about to find. What a surprise that was!! After a 35 minute walk, throughout the great sewer system, we were witnesses of the hard work which it takes to design and not only that, to dilute the great amount of cubic meters produced by each one of the

Stuttgarters and which come all the way down from the highest parts of the city and which follows its way down until Neckartor! The excursion helped us to understand how important it is to have a well working system which can also cope with the high 'tides' of a heavy rain day. As a special moment in the excursion, we were told that if a heavy rain would come down at the moment of our visit, we would not have been able to come down, or at least not by feet, since the system would be full with water up to the top of its almost 10 meter diameter. Our excursion ended with the visit to one of the largest storm water tanks in the city, which had a great system to 'flush' the rain water.

• Carlos Olivo

WELCOME PARTY

The day was a little heavy, a little cold, and a little tired. First week on February 2007, a nice and warm welcoming for all of us took place! We were expecting nothing, we didn't know what would happen, but now we realized, that party was probably the beginning of the friendship of many of us. Beers, soda, water, many snacks were the binding forces in this mole of students of WASTE generation 2007. The game we played (the Wingo of knowing your neighbor) was really interesting, I still want to know who got the ticket for high speed between Bad Cannstatt and here (actually I found now where do the manatees live!). The music was according to the occasion many electronic, dance, Latin music – that Latin people couldn't let the opportunity of dancing for a while just go away! – some rock and middle east music as well. This was the start line for many of us to get to know each other better, who comes from Africa, or maybe from India, or perhaps Mexico and many others, and what are their expectations, their dreams, their hopes. We want to thank the past generations of WASTE and the Program's leaders, Dr. Waldbauer, Mrs. dos Santos, for having the things set up for us to enjoy! We will do our part for the next Generation! All of us will become family here, sometimes fighting like brothers, sometimes giving support or a shoulder to resist, and some others just taking care of each other, and this Welcoming Party 2007 became the first approach - the rest depends on us and will come in time...

• Carlos Azucena

Life after WASTE

WORKING IN GERMAN INDUSTRIES

Having accomplished my studies in chemical engineering and worked during a year with chemical and microbiological analysis of water at a laboratory in Honduras, I arrived in Germany in 2004. What better experience than coming to an international program and sharing with people from all around the world? This was my first step to a world full of opportunities. The WASTE program definitely opened many doors for me. While coursing the program, I did my Master thesis at DaimlerChrysler AG about an environmental management system with ISO 14001:2004 and as a practical example I worked with the reduction of fuel consumption in industrial vehicles and their impact in CO₂ emissions. This was my first experience in German industry. Here I obtained a deep understanding of the management area which I consider as an important tool in the professional life, as well as many experiences which contributed to my personal and professional growth.

After successfully completing the WASTE program, I did an internship at the University of Montenegro. I worked in

the Center of Environmental Quality Control and I was involved in the research of groundwater pollution due to aluminum industry. It was an interesting experience to work in an eastern European country to deal with a totally new language, understand their mentality and see a different part of Europe which I never imagined before. Once I completed my internship, I returned to Germany and was ready to look for a job.

Meanwhile, I have started working at H₂O GmbH process water engineering, a company located at the very south part of Baden-Württemberg specializing in industrial waste water treatment, with vacuum distillation units as core product. My position in the company is as technical project engineer. My tasks include the development of projects starting with the selection of the appropriate procedure, planning and construction of the unit up to its installation and start-up. First I was surprised by the strict recruitment process held by the company, which



included several interviews, a probation day and, once I started working, regular meetings to evaluate the work done. The technical terms in German language were my next challenge in addition to having a lot of new things to learn like at every

beginning. I always had a very good impression of the company and the intensive training program that they offer to all employees either externally or in-house adds to this opinion. Another thing that I really enjoy is the international working environment; during my first two months I traveled to Italy for the installation of a plant

which was a training for me and later to Spain to visit clients and clarify technical details with them. H₂O GmbH is mainly active in Europe but also has customers in North America, Australia, Asia and East Europe. I am responsible mainly for all Spanish-speaking areas. Projects come from all over the world and there are no two projects which are alike. These new challenges are what I enjoy the most.

• Gloria Chavez

NICOLAS ESCALANTE: LECTURER IN COLOMBIA, UNIVERSIDAD DE LOS ANDES

During my studies at WASTE, I had been working at the Institute of Sanitary Engineering, Water Quality and Solid Waste Management for three years, the last two in the field of solid waste. The natural step was to continue there and pursue a doctoral degree. Surprisingly, about half a year after finishing my studies, I was offered a position as instructor at my former university in Bogotá, Colombia, the Universidad de Los Andes. This was a good opportunity to go back home, see my family & friends, and contribute to the improvement of the waste management situation and environmental quality of the country. Last year in June, I went back to Colombia. After living in Stuttgart for almost four years, the reverse cultural shock was unavoidable. Anyway, I was excited to start this new phase in my life, and to apply the knowledge and experience acquired in Germany.

I had about a month for preparing the lecture materials for two undergraduate courses Solid Waste Management and Introduction to Civil Engineering. Thanks to my friends and colleagues at Stuttgart, who helped me structure the waste management course and with material from their lectures, I had a much needed head



start. In the first semester I learned there was much more to lecturing than just standing in front of a classroom. Selecting the appropriate material and developing interesting and motivating exercises for the students takes time. With the younger students, the challenge was more helping them change old school habits and acquire new skills in order to survive university. Beyond the technical aspects of engineering, I share with them the most important lesson learned in Germany: to become independent and assume responsibility for one's education, instead of expecting it to be solely the job of the lecturer, which many Colombian students think.

And I have also been helping design the solid and hazardous waste laboratory for the new Engineering Faculty building. An important part of my job has been to become familiar with the solid / hazardous waste situation in the country and different governmental policies for improving it nationwide. Colombia does not count with a national waste law; the waste related legislation is dispersed and much of it difficult to understand. Though I have tried to reduce my knowledge on the country's waste management situation by advising several ba-

chelor theses, progress has been hampered by lack of available information.

Thanks to my relation to Universität Stuttgart, Los Andes has been able to make part of an international consortium funded by the European Union, with the aim to determine the current state of the art and research needs in sustainable waste management, mostly in Latin American countries (WasteNet). The outcomes will lead us to recommendations to the EU on which research topics to fund in developing countries, supporting sustainable approaches which respond to our needs and economic / technical capacity. Within the frame of this project, I had the chance to visit Stuttgart in April. Many good memories came back, with a feeling of nostalgia. Fortunately, since the instructor's position is limited to three years, after which you are expected to pursue a doctoral degree abroad, I will then be able to go back to Stuttgart to keep on learning and growing professionally.

Thanks to my education in Stuttgart, I am now in the privileged position of helping my country through education, research, technology, and knowledge transfer to improve the quality of life of its people. All I can wish for is that former, current and future generations of WASTE students will have such good luck as mine.

• Nicolas Escalante

BARUCA - BUENOS AIRES RESEARCH ON URBAN CLIMATE AND AIR POLLUTION

After my bachelor degree in Chemical Engineering in Honduras I decided to go abroad and continue with a master study course, the WASTE course in Stuttgart. To go abroad is a challenge but it also opens your mind and you gain a lot by learning from different cultures. In June 2005 a very interesting master thesis was offered at the

Institute of Process Engineering and Power Plant Technology (IVD), in the Department of Air Quality Control. The task was to set up a measurement plan for a project and to make the necessary preparations which took place in Buenos Aires, Argentina, in the following year. The title of the project, which is funded by the German Research

Foundation (DFG), is „Buenos Aires Research on Urban Climate and Air Pollution“ (BARUCA). It involves the participation of the Humboldt Universität zu Berlin, Deutscher Wetterdienst, and IVD. After finishing my master thesis about the measurement plan, Prof. Baumbach offered me the unique opportunity to work as the person in charge of the project in Buenos Aires. A challenging new period of my life began in March 2006 when I moved to Buenos Aires for one year to perform the planned measurements. The subject of the project BARUCA is to get knowledge of the spatial distribution (horizontal and vertical) and temporal variation of air pollutants in Buenos Aires city and to understand the local flow systems like land-sea breeze and country wind systems and the influences of these local flow systems on the dispersion of air pollutants. The purpose is to form the basis for an effective air pollution prevention management, which should be an important integral part for future city planning. Together with a German colleague from the Humboldt-Universität zu Berlin, three Argentinean partners and the assistance of a number of Argentinean students, measurements of air pollutants like VOC (volatile organic compounds), NO₂ and PM (particulate matter) and meteorological parameters were performed. Among other activities we did vertical soundings with two

tethered balloons to investigate the vertical distribution of air pollutants from ground up to 1000 m. These balloon soundings were the first ones in Buenos Aires ever. Another challenge: To convince numerous „very important“ officers ranging from the flight security to the military that these measurements were necessary, that our systems were secure, and that we had experience in performing such experiments. For sure, numerous problems occurred during my stay in Buenos Aires, but finally the measurements were finished quite successfully after one year. In March 2007 I came back from Buenos Aires to Stuttgart with a lot of measurement results in my luggage, with a lot of new experiences and last but not least having found a lot of new friends in a country on the other side of the globe. Now the second part of the project has started: the evaluation and interpretation of the data, and hopefully a PhD title in the future!



Funny stories

LOST IN HEIDELBERG

I was really excited to visit new places in Germany besides Stuttgart. Thanks to my friend Karen who arranged a wonderful trip to Heidelberg.

After a long tour around the city, we decided to get some drinks and spend some time along the river. Luckily, we found an open shop and rushed in. For me it was a golden opportunity to buy some food as I had nothing left at home. So, I took my time while my friends took beer and went out of the shop. When I came out of the shop, I found no one waiting for me... I was shocked! I looked here and there but found no one. Then I went to the river side thinking they would be enjoying beer along the river but unfortunately I didn't find anyone there.

portunity to work as the person in charge of the project in Buenos Aires. A challenging new period of my life began in March 2006 when I moved to Buenos Aires for one year to perform the planned measurements. The subject of the project BARUCA is to get knowledge of the spatial distribution (horizontal and vertical) and temporal variation of air pollutants in Buenos Aires city and to understand the local flow systems like land-sea breeze and country wind systems and the influences of these local flow systems on the dispersion of air pollutants. The purpose is to form the basis for an effective air pollution prevention management, which should be an important integral part for future city planning. Together with a German colleague from the Humboldt-Universität zu Berlin, three Argentinean partners and the assistance of a number of Argentinean students, measurements of air pollutants like VOC (volatile organic compounds), NO₂ and PM (particulate matter) and meteorological parameters were performed. Among other activities we did vertical soundings with two

tethered balloons to investigate the vertical distribution of air pollutants from ground up to 1000 m. These balloon soundings were the first ones in Buenos Aires ever. Another challenge: To convince numerous „very important“ officers ranging from the flight security to the military that these measurements were necessary, that our systems were secure, and that we had experience in performing such experiments. For sure, numerous problems occurred during my stay in Buenos Aires, but finally the measurements were finished quite successfully after one year. In March 2007 I came back from Buenos Aires to Stuttgart with a lot of measurement results in my luggage, with a lot of new experiences and last but not least having found a lot of new friends in a country on the other side of the globe. Now the second part of the project has started: the evaluation and interpretation of the data, and hopefully a PhD title in the future!

For more information on the project BARUCA, you can visit its website: <http://www.ivd.uni-stuttgart.de/baruca/>

• Marcelina Arkoulis

• Karen Rahadi



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• Marcelina Arkoulis

• Karen Rahadi

RED CROSS

My name is Karen Rahadi. I am a 27 years old Indonesian woman, 163 cm tall and about 47 kg of weight. I live in a nice apartment with my fiancé in Leonberg. One day, I was at home during the afternoon. Someone rang the doorbell, so I opened the door. It was a man from the „Deutsches Rotes Kreuz“, with the purpose to ask for charity collection. The man looked at me, then he asked me politely: „Sind *deine* Eltern da? (Are your parents there?)“. I replied: „Ich wohne hier mit meinem Freund (I live here with my boyfriend)“.

The man then apologized by saying: „Oh bitte entschuldigen *Sie*... - you know Asian women always look so much younger than German ones, eh? ;)

• Karen Rahadi



The WASTE Club Stuttgart e.V.

BAUMA EXCURSION

Organized and sponsored by the study program and the WASTE Club Stuttgart e.V. the students had the opportunity to be a part of the first excursion of the Summer Semester to BAUMA 2007, which took place at Messe München International on 26 April.

BAUMA is the most important trade fair for the latest developments and technologies in construction machinery, building-materials machinery, mining machines, construction vehicles and construction equipment. BAUMA 2007 was the most successful all-time, sporting over 3,000 exhibitors from 49 countries and more than 500,000 visitors - an increase of 25% compared with 2004. Visitors came from 190 countries. Contributing significantly to this success is the global boom in construction - especially in the emerging countries of Asia, Latin America and Africa - and also the pick-up in the construction sector in Europe. In particular, the Chinese exhibitors

had a presence nearly five times as large as in 2004. Exhibitors from Austria, Luxembourg, Turkey, Korea and Greece doubled their demand, while India reserved more than four times more space and Japan even five times more. Companies from countries like Bulgaria and Singapore exhibited for the first time.

The BAUMA excursion was of great importance for the students of WASTE, especially for the ones who had taken their B.Sc. degree in civil engineering, as it was the world's largest exhibition of technology, machinery and professional-know-how under one roof. The students were especially taken aback by seeing the sizes of the machines, vehicles and equipments. It has definitely justified their decision to study in such a technologically advanced country like Germany, where they can get maximum exposure to the latest developments in the field of engineering, occurring not only here but all over the world.

• Gloria Galindo



Where to go in Europe?

TRIP TO TRANSYLVANIA

Romania is a country in Southeastern Europe with a stretch of sea coast along the Black Sea, and the eastern and southern Carpathian Mountains running through its center, separating the so called Transylvanian region from the rest of the country. Certainly, Dracula immediately comes to your mind, but I assure you, you can still visit his beautiful castle without garlic in your pockets.

If you like mountains and climbing, then Transylvania, with its amazing nature, is the perfect place for you to visit. What you definitely have to see is the only volcanic lake in whole Europe, called Santa Ana. Since this year Sibiu is the cultural capital of Europe, this is the best time to get to know the area. This region being a multiethnic one, you can discover quite powerful marks of German and Hungarian culture. Since Romania is also part of EU, as an EU citizen now you only need a passport and some pocket money to get there.



What else to see:

- The medieval citadel of Sigisheora
- Peles castle, retreat of Romanian monarchs
- Black church of Brasov (Kronstadt)
- Cluj-Napoca / the statue of King Matthias
- The Athenaeum in Bucharest

• Reka Tittesz



WASTE NEWS

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