



## GRADUATION CEREMONY 2005

In a festive and touching ceremony, the WASTE students of the 3rd generation were bidden farewell on 24 November 2005. Welcoming addresses were held by Professor Engelbert Westkämper, Dean of the Faculty of Mechanical Engineering, Program Coordinator Professor Günter Baumbach, and 3rd generation student representative Keng Been Ang.

One special highlight of the event was the presentation "Resource Productivity rises to the same Importance as Labour Productivity", held by Professor Ernst Ulrich von Weizsäcker, member of the German parliament 1998 – 2005, and appointed as Dean of Bren School of Environmental Science and Management, University of California. Prof. v. Weizsäcker explained that contrary to the previous trend of falling commodity prices because of rising labour productivity, since 2000 a dramatic increase in prices for all kinds of goods (e.g. metals, food) was observed - due to the growth in demand from developing countries as well as to environmental pollution. Prof. v. Weizsäcker stated that the rich nations were currently the biggest polluters but there was danger



that the poorer countries were about to "beat" the richer ones in that aspect soon. Showing a close correlation of variations in CO<sub>2</sub>, global average temperature through the ages and rising sea levels. Prof. v. Weizsäcker demonstrated that the actually projected world energy demand exceeded a reduced demand (necessary to stabilize the climate) by three times!

>>>continues



## INTRO AND WELCOME

Welcome to the first WASTE newsletter. From this semester on the WASTE Club Stuttgart e. V. and the study program WASTE will publish a newsletter once a semester. The newsletter will inform students, alumni, professors, employees and all interested person, as well organisations and companies, about the international Master of Science program WASTE, its activities and people.

The first issue of the newsletter highlights: „Experiences of new WASTE students“, „Recent events“, „Studying WASTE and Life after



WASTE“, „Funny stories“ and „Where to go in Europe?“.

You'll also find a spotlight on WASTE Club Stuttgart e.V. We welcome your suggestions to make this newsletter the best information tool possible. Please contact us with your comments and ideas.

I want to thank all authors and involved person for their articles, ideas and support. Have fun reading, and many thanks for your interest!

Dr. Michael Waldbauer, Chairman of WASTE Club Stuttgart e.V.

## >>> GRADUATION CEREMONY 2005

He concluded that resource productivity – energy and material intensity for producing goods – needed to be improved by at least a factor of four, citing his famous publication “Factor 4”, and presented numerous examples of how this could be achieved. Prof. v. Weizsäcker expressed the hope that the young graduates would apply their acquired WASTE program knowledge to meet the respective challenges in their home countries, and wished them success.

Prof. Westkämper then congratulated each graduate personally, handing over the WASTE Diploma. Other highlights of

the evening, performed by WASTE students, were a traditional Mexican dance, self made music and a congratulating flash presentation.

The concluding reception was a welcome occasion for the graduates to reminisce about studying times, talk about their plans for the future and get into contact with quite a few lecturers and other persons involved in the WASTE program. A splendid buffet of international specialities, deliberately prepared by the students of generation 2005, secured the physical well-being of the participants.

• Christine dos Santos Costa



for more information, photos etc.:  
www.waste.uni-stuttgart.de

## Reports and Stories of Students

### EXPERIENCE OF NEW WASTE STUDENTS - THE HARD WAY TO ADMISSION - THE JOURNEY TO STUTTGART

Studying abroad was something I've always dreamed of. I decided to work on making the dream come true. After searching for Programs (in Google, DAAD website, etc.), I found WASTE as very good Master Program. I can say that everything then “died a natural death”: it was quite easy to choose such an interesting program, in such a nice city, with a friendly website and requirements. I could even talk about a decision taken “at the first sight”...

Deadline was coming and I still haven't been able to send half of the required documents. My diploma was missing, since I still had to wait three months for my BSc exams to take place and along with that, the letter of recommendation was also missing, since my supervisor was still somewhere in Florida... From the always absent

ledge was zero so I was just holding the paper trying to read SOMETHING!! I even tried to read it on the phone to my sister since she knows some German, but it was still IMPOSSIBLE!! I called some friends looking for help and finally I managed to be in touch with a German guy. He was lecturing some class and I went to meet him during his break period. Unfortunately it was not a positive answer...

Another step to go through was how to get a visa. Some requirements were quite a good test of my condition. How was I supposed to have a bank account in Germany under my name, proving that I had enough money not to die starving in the middle of the winter? Well, I trusted the letter of my local bank which was properly written by an official translator and which

I carefully put enclosed with the rest of the papers. After two months of silence, so long that I had forgotten all about this stuff, I was awarded my so dreamed stamp. Finally I could say: Germany here I go!

I was flying to Germany with my mother. As soon as we got to the airport, we found out that our flight had delayed four hours and instead of a direct

flight we would make several stops. After 16 sleepless hours in the plane crowded with crying babies, we arrived to Spain, where we had lost our connections. As if that wasn't enough, because of a mix up by the travel agent, my mother had no way to fly here. She bought a new ticket for a different flight. Arriving earlier, she had to wait

for me at the airport so we both could go and look for my buddy from Welcoming Service of University Stuttgart, who had also waited for quite a long time... My first week in Stuttgart was great, busy and funny. I arrived on a holiday so everything was closed. I didn't have anything to eat, but thank God, my Buddy invited me for lunch. She's from India, so the food was very spicy; maybe not for her, but a lot for me. First cultural shock had just occurred! I had heard that German people were cold, closed, shy, etc, but on my second day of classes the two German girls in our group invited us to the movies. They made the first step in trying to make friends. First myth was broken!

The preparatory courses and exams were very good. Some of us haven't been in a classroom for a very long time. For others it was about studying something that they never knew. The lectures prepared us well to take the preparatory exams. The structure of the exams was quite new for most of us. I wasn't used to writing exams in less than an hour and the grading system was also very different. But all the same, we all did well and managed to proceed to the main program...

The Intensive German Language Course began just after a week off from the hectic 8 weeks of loads of studying. The (6hrs x 5days x 6 weeks) itself defines the word INTENSIVE. But all in all, the motto of learning German was fulfilled as most of us can now speak some German. Another interesting part was the orientation and intercultural training, where I got to know things about other countries and cultures. So to summarize it all, learning German, in Germany, from a German teacher in the German way is a thing to be cherished throughout the life!!!

• Escoto, Gosia, Medon, Perez, Prado, Gonzalez, Sasu, Agrawal



Dean to the translator, from the translator – home, trying to find notes from the primary school... I spent the following week outside the door of my supervisor waiting for a few hours every day just for a minute of his time...

The first time I applied to DAAD scholarship I received the so expected letter... written in GERMAN!! My German know-

ledge was zero so I was just holding the paper trying to read SOMETHING!! I even tried to read it on the phone to my sister since she knows some German, but it was still IMPOSSIBLE!! I called some friends looking for help and finally I managed to be in touch with a German guy. He was lecturing some class and I went to meet him during his break period. Unfortunately it was not a positive answer...

## News and announcements

### NEW WASTE LECTURER DR.-ING. ULRICH EIDEN

On Tuesday mornings, sometimes you might see a new face in IVD, looks a little bit muscular and always smiling. This friendly stranger is Dr. Eiden, our new lecturer of Thermal Process Engineering.

Dr. Eiden, An experienced German chemical engineer, an amateur piano player, a sport lover, a smart lecturer, always brings a lot of laughing, joy and practical knowledge to the lecture. He was born in Hermeskeil, which is in southwest Germany, close to the border with Luxembourg and France, famous with its transportation museum and lovely scenes. Now he lives in Ludwigshafen with his wife and 14-year-old son.

Our dear teacher studied Chemical Engineering (1981 – 1985) and did his Diplomarbeit "Condensation in Diluted Gas Flows" at TH Karlsruhe; four years later, he completed his Ph.D. on the topic of

"Single- and Multicomponent Adsorption Equilibria". Afterwards, he works for BASF until so far.



In BASF, he has worked for several R&D departments: Adsorption and Ion Exchange, Distillation and column fluid dynamics and even was the head of a group dealing with - Solids Handling, Drying and Product Formulation and Systems Process Engineering. In those years he has also experienced some Technical Services:

Plant Engineer for Maintenance and Projects. Right now, he is responsible for Capital Projects and Plant Changes of the Operating Divisions "Functional Polymers" and "Performance Chemicals".

Besides BASF, he is member of the GVC-Fachausschuss "Fluid-Verfahrenstechnik", has some scientific publications about Adsorption, Distillation and Process Engineering. Furthermore, he gives lectures and talks at national and international meetings.

It's so nice to have such an experienced and humorous lecturer for this tough class. At the end of this summer, he will bring us to visit BASF.

• Isaiah

### DATES TO NOTE

- 13 July: WASTE Summer Party
- 21 July: 1st semester excursion to cement factory Holcim
- 30 July - 2 August: IVD Excursion
- 1 Aug.: WASTE Club excursion to construction site of "Neue Messe Stuttgart"
- 23 Nov.: Graduation Ceremony 2006
- Waste Intercultural Meetings "WIM" at 5.30 p.m. on 7 Nov., 5 Dec., 9 Jan. 2007, 6 Feb. 2007 (IVD, room V 23.01)

### WELCOME GENERATION 2006

Never before have so many WASTE students taken up their studies after passing the challenging entrance examinations. Featuring 43 students, the 2006 generation is about twice as strong as usual. There is a remarkably well-balanced participation of nations, numbering 23, and it is also positive that men and women are represented almost equally in the class (53% / 47%, respectively).

The new generation 2006 has already made possible some inspiring innovations: As you can see by this first edition, the WASTE Newsletter, and also the WASTE Intercultural Meetings (please see "Dates to Note"). Prospects for a well-organized and fun WASTE Summer Party (and later on Graduation Ceremony) are also bright with such a dynamic group!

• Christine dos Santos Costa

### CLASS SPEAKERS OF GENERATION 2006

On May, 16th, during the first class meeting with the fifth generation students, the election of the new class representatives took place. Three friendly and approachable students were elected. Here you can get to know them a little bit better:



• Marta Escoto de Tejada, class speaker: "I was born in 1981 in El Salvador, a country where the environmental problems can be seen straight away. I studied Chemical Engineering until 2003, hoping that

in the future I could do something to improve the situation. After that, I had the opportunity to work and get in touch with our industry and its problems. I'm sure here in Germany, studying this Master Program I can learn and get tools to do my bit. If I can help you in any way, I will be happy to do it!"



• Gosia Stein-Brzozowska, class representative: "I would like to thank my classmates for the rely they've put on me. I'll try to do my best. For those who don't know

me, I'm a merry Polish girl always willing to help, already quarter of a century old!; graduated in Sept., 2005 Environmental Protection and Management BSc Course at the Gdansk University of Technology, Poland. Choosing WASTE I've been hoping the knowledge and experience I collect here will help me in the future to help our environment. My interests are sailing, mountaineering, sustainable development, waste management (especially waste-to-energy), trekking and hiking."



• Carlos Olivo Quiroz, class representative: "I was born in Mexico City. I attained my Bachelor's Diploma in 2003 as a Chemical Engineer at UNAM. I was president

for the Student's Board for the Mexican Institute for Chemical Engineers (IMIQ) and working for the German Society for Chemical Technology and Biotechnology (DECHEMA), was able to learn a bit more from Germany, its people and their environmental development. For this latter reason I applied for a scholarship at the National Council for Science and Technology of Mexico (CONACYT) in 2005. It is a great experience to be part of such an international group like the one we have at WASTE. I would say that for most of all, it is a real dream that came true!"

• Marta Escoto, Gosia Stein-Brzozowska, Carlos Olivo

## Recent events

### EXCURSION TO ACHEMA

With great interest, the new students have already participated in a first excursion. On 17 Mai 2006, they visited the ACHEMA fair in Frankfurt together with students and scientific assistants of the Institute for Mechanical Process Engineering (IMVT), who organised the excursion. At



the fair, five selected companies presented some current processes and products, i.e. mixing, separating and measurement technologies for environmental engineering.

The students have also made use of the occasion to identify themes for possible Master Theses in industry – who knows, maybe this excursion has even improved the professional outlook of one or the other student.

• Christine dos Santos Costa



### WELCOME PARTY 2006

Right in the beginning of February we had our WASTE Welcoming Party. It was a quite cold and snowy evening, but, nevertheless, that did not stop the students from attending! It was a nice break from the tough schedule of the preparatory classes and the stress of the oncoming entrance exams. But most importantly, it gave me the opportunity to get to know my fellow-students better, as well as students from the previous WASTE generations, which did their best to make me feel welcome. Moreover, it is always interesting to see how people from other countries party!

### 2ND INTERNATIONAL DAY OF THE ENVIRONMENT

On the 29 March 2006, I was given the opportunity to represent my country as a student ambassador for the "2. Internationaler Umwelttag". This event was jointly organised by the Ministry of Environment of Baden-Württemberg and our study program WASTE in the Universität Stuttgart. The main topic of interest was "Global denken - lokal handeln".

To start off the conference, we were graced by the presence and welcome speech from Mrs. Tanja Gönner, Minister of the Environment of Baden-Württemberg. Several topics were discussed regarding the global challenge of protecting the environment, most notably on the reflections about the environment and sustainability.

The renowned climatologist Professor Dr. Mojib Latif then delivered an interesting presentation on global warming which is caused by the increase of green house gases in the atmosphere during the last few decades. The third guest speaker was Mr. Guido Prick from BMW group, who shared with us the corporate sustainability approach via technical innovations.

The serious mood was lightened by piano scores from the talented Ms. Meilu Wu during the intervals, and the ever charismatic TV and radio moderator, Matthias Holtmann, who never failed to draw the cheers and laughter from both the audience and the podium participants.

After the day of discussions and podium participation, I was left to ponder over two questions – how and what can I do as an individual to protect this large and de-

licate environment? Looking back at it today, I believe that Mrs. Tanja Gönner has already answered my earlier questions in her message that day. "...We are willing to work for our future jointly and completely." The responsibility does not solely lie in the hands of an individual, but rather as a unity which consists of many countries.

In an international context, we will always be challenged to reach a consensus with people of different cultures, of different opinions, of different viewpoints, and of many other factors more. However, the message is very clear now – The environment is our future.

Through overseas educations, we learn from an international communi-



ty about environmental problem solving and positive tomorrow's technologies that could one day be implemented in our own countries. Thus, I would like to share my concluding statement during the podium discussion here - As international students in Germany, I believe we share the same aspirations; to learn and think globally, and then to act locally back home.

• Keng Been Ang

During the party, pictures from past events were projected, such as the previous welcoming party, various excursions, the summer party and the graduation cere-



mony. So that really made me anticipate for the programme to begin in order to gain knowledge, participate in similar events and, of course, eventually graduate!

At the end of the day, it turned out to be a great party, with people from all over the world having fun and sharing a common goal which brought them together. It was definitely the best way to feel welcome in a new country (and for some, also in a new continent), which is going to be my home for the next 18 months...

• Magdalini Vithoulka

## Life after WASTE

### BACK IN KENYA

Having successfully completed the WASTE program, I arrived in my country on 29 November 2003, exploring those organizations where my newly acquired knowledge was to be of immediate use. Luckily, a new Law, Environmental Management and Coordination Act (EMCA) 1999, governing environmental issues in Kenya had been passed by the Parliament into legislation. The Act had stipulated that an independent body, National Environmental Management Authority (NEMA), was to enforce the upcoming Law. Among other responsibilities, NEMA was to develop and enforce national regulations on air quality control, solid waste management, wastewater disposal, land use and disposal of chemical wastes. At the time, I was one of the few technically qualified people on environmental issues in Kenya. As a result, I was appointed by NEMA as Secretariat to a task force entrusted with developing air quality regulations for Kenya. Beginning with reviewing air quality regulations in other countries, the assignment progressed well over the year 2004 and the regulations may soon be ready for gazette by the Kenyan government.

In early 2005, I was appointed the Kenyan contact person and Local Team Leader by Prof. James Lents of the University Of California Riverside, USA, on a project on modeling vehicular emissions for Kenyan city roads. The project was funded by the USA government through the United States Environmental Protection Agency

(USEPA) in collaboration with United Nations Environmental Programme (UNEP), whose Headquarters are based in Gigiri, Nairobi. Over 200 different types of vehicles were tested and a model for estimating vehicular emissions developed.

Under EMCA, I have registered as a Consultant Lead Expert on environmental issues in Kenya, which means I can give unquestionable expert advice and consul-



tant opinion. On this background I joined hand with other professionals, and our consortium consulted for over 50 firms on environmental audits as a requirement of EMCA 1999. Most of these firms have made savings well over 5,000 € per month. The approved approach and knowledge used in this works is mainly what I learnt

from the postgraduate study at the Universität Stuttgart.

Besides the experience above, in early 2005, the Government of Kenya through the Ministry In-charge of Roads advertised for job opportunities especially for Civil Engineering Postgraduate degree holders. I got short-listed to attend an interview, and there took the opportunity to sell out the WASTE program for its excellence in content coverage and relevancy to the needs of developing countries. Indeed the whole interviewing panel became enthusiastic of my expertise and recruited me as an assistant Engineer (Roads) on April 2005. Meanwhile, I am working at a station located about 400 Km away from Nairobi, Kenya's capital city, on a road construction project costing about 10 Million Euro, holding the position of an Assistant to the Senior Engineer on site. There I am involved in overseeing quality control of the works to meet the set standard specifications on every stage of road construction works to bitumen standards. This includes observing and enforcing environmental matters on the overall works, for example the recultivation of the borrow pits we take our gravel from,

and ensuring unsuitable material within the road construction corridor is disposed in an environmental friendly manner. I also deal with run-off estimation computations for every major river crossing to be used in sizing the drainage structures being constructed within the scope of the road project.

• Kevin Nyabuto

### WORKING AT THE BOSCH COMPANY AS AN „INTERNATIONAL TRAINEE“

Dear all, "Jeder Erfolg hat seine Geschichte" is the slogan for Trainee Program (TP) of BOSCH Group. I want to share my "Geschichte" with you.

I completed my M Sc. WASTE program in 2004 with the thesis study in Robert Bosch GmbH, concerning on exhaust gas treatment (EGT) systems. It was such an excellent topic that was the combination of environmental and mechanical engineering.

After graduation, I applied some jobs which fit on my technical and personal background. One of them was Research and Development TP of BOSCH Group. There are around 15.000 applications for

TP and 70 trainees are chosen per year. By the way, there is a really good network between Trainees. The Chairman of BOSCH Group Mr. Fehrenbach was a Trainee. I sent necessary documents with my reference letters. Then a few days later I got an invitation for the so called "applicants @ Bosch" that was the selection meeting for candidate trainees.

There were 60 applicants and it was a little bit stressful to show my capabilities among all German speaker applicants. I started my presentation in German to take the attentions on me and than pressed the button for English. Self-motivation and temperament control are really what you

need. Two trainees were chosen after all discussions. I was one of two. Jury was really fair and just concentrated on your behaviors and personality. Even if you are not chosen as a Trainee, you still have chance to get a job in the meeting.

It was not the end but the beginning. After that meeting, I joined four more interviews, which were just to clarify my capabilities and skills in management tasks, regarding on technical and personal issues in related departments.

After all, we planned my TP for 2 years with Mr. Koehler and Mr. Knopf, who are project and department managers, respectively. >>>continues

## WORKING AT THE BOSCH COMPANY AS AN „INTERNATIONAL TRAINEE“

My near (5-7 years) future career is planned for EGT systems and project management which are really important for Bosch. For learning complete processes, platform development, research, application and customer support and manufacturing projects were planned for every 6-month periods.

The aim of TP is to educate the necessary future managers by "learning by doing". Besides all advantages for professional career, trainee has language and personal skills development budgets. Moreover, a trainee meets always with employees from different departments and countries to establish his own network and learns different procedures in each station.

I was in Feuerbach in diesel systems in my 1st station. My tasks were modeling the whole of new EGT system for sensitivity analysis (technical), Initial pricing and cost analysis (economics), sensor development for this EGT system. This project was



called "platform project" which was in the decision phase if it would be supported for production and further development.

In my 2nd station, I was in Schwieberdingen in corporate research (CR) department for my research task. DOC (Oxicat) modeling and simulation was my technical task which is one of the main EGT component. I made strategic analysis for CR concerning on EGT systems in commercial vehicles (marketing, management). It was really difficult to have two important tasks with lots of demands and responsibilities on them. In this Station, I provided two master theses for M Sc WASTE students.

I think the most interesting parts are foreign assignments. A trainee should complete one station out of Germany. For me it is two.

After successfully completing my 2nd station, now I am in Higashimatsuyama, Japan. Here I am sup-

porting Japanese customer for the application of DNOX systems for 6 months. I am leading a small team to achieve my technical and management target. It is really exciting that the cultural differences play an important role in business. Moreover, Japan is a very interesting country. Culture, foods, and climate...

Hallein, Austria waits me after Japan assignment. There I will work in manufacturing of EGT systems. Different German dialect and new culture... I am also looking for it.

This program provides huge amount of information about BOSCH Group and processes, which are really important for future managers. These opportunities are only a dream of a normal employee. This program is really difficult due to achieving very many different tasks in different places in a certain period, but provides a lot of opportunities for future career, meeting with new people and fun. I encourage you to apply for this position.

Yours truly,  
Volkan Devenci

## Studying WASTE

### WRITING MY MASTER THESIS IN EDINBURGH

As the only German student of the WASTE generation 2005 I decided to work on my master thesis in a foreign country. When I saw the offer for a thesis at the University of Edinburgh I knew that it would be the right place to go. What country could be better to improve your English than Great Britain? (OK, the Scottish accent is something you have to get used to.) My supervisor Dr. Mark Biggs is well known in the WASTE program because he is teaching the preparatory course thermodynamics.

Within the next six months I will work on the theme "Computational Fluid Dynamics study of Dissolved Air Flotation". Dissolved Air Flotation (DAF) is an important floatation process in the production of potable water. During its use over the past 30 years, largely empirical data has been used to determine operational procedure. The aim of the work is to get a better understanding and so an optimisation potential for the usage of DAF in practice. For that purpose Computational Fluid Dynamics (CFD) simulations will be used. The work will be mainly done with the software FLUENT®.

Dr. Biggs allocated me in a small nice office in the Kenneth Denbigh Building, which belongs to the School of Engineering and Electronics. There I have a PC with the required software. The campus

site is called King's Building and is located in the south of Edinburgh. Mainly the natural sciences and engineering are located there. The old campus is in the town centre of Edinburgh.

Edinburgh, the capital of Scotland with around 436,000 inhabitants, has a historical core, which is mainly dominated by the over 1400 years old Edinburgh castle. Apart from that there are many museums and art galleries. From far outside Edinburgh "Arthur's Seat" is visible. The hill rises above the city to a height of 251 m, provides excellent panoramic views of the city, is quite easy to climb and is a popular walk. The northeast of the city abuts to the sea. In urban areas you can find nice beaches.

As a guest researcher I don't have access to the university student dormitories, so I was completely on my own. Luckily some colleagues from the school here offered me a room for the first weeks. After almost one month of intensive search I finally found a nice flat, which I share with a Spanish guy and a Chinese girl.

On weekends it is very usual to meet with friends in traditional pubs to get started with some good beers or ales. After that you change to clubs or discos. The nightlife here differs in some points from Germany, e.g. all bars and discos have to close at 3 am

and there is a strict smoking prohibition in all these places. But that doesn't mean the vibe is less vivid.

In August the Edinburgh International Festival will take place, which is considered to be the biggest in the world. In that time the town is at "exceptional circumstances", I heard. A huge number of concerts and stage performances of all categories will take place everywhere in the city. All shops and the gastronomy are allowed to open until 5 am. Lots of tourists are expected to come for the maybe best time of the year in Edinburgh.

• Sebastian Platz



## Funny stories

### 10 HOURS FROM MUNICH TO STUTTGART

It was my first trip outside Stuttgart after two months of preparatory classes and exams. I travelled to Munich with my classmates to attend a Greek Party. The weather was very terrible that day but for some of us it was fun walking and playing in the heavy snow. After long day of sight seeing, we went to a Bavarian Restaurant to eat some specialities. I really enjoyed my meal. After eating it was then party time but unfortunately, some of us decided

to come back home. We went to the Train station and found out that the return trip was going to take the whole night. The last train scheduled to move in 5mins was going to come at an unknown time and the previous train moved some few minutes on our arrival. The return journey took eight hours instead of the normal three hours to Stuttgart and we made a lot of transits. It was very exhaustive trip, but all the same I really enjoyed it so much.

• Samuel Sasu

### A WORLD CUP DREAM COMES TRUE

In life some dreams come true, like mine, I had a dream to see a World cup match, I came to Germany as a WASTE stu-



dent and got the ticket to see the world's biggest sporting event. It was Australia - Croatia match on June, 22<sup>nd</sup> and I couldn't believe my luck that I will be seeing the match.

Football fever picked up around as hosts did well. I was eager for my match.



I had decided to support both teams and enjoy every moment of the match. Stadium was full of fans from Australia and Croatia. Singing and cheering begun. Atmosphere was terrific. We waited anxiously for kick-off.

Finally match started. Croats immediately took grip on the game and won the free kick in 1st minute and scored too. Entire stadium erupted with the word: "Goal!!!!". I witnessed one of the best goals of 2006. Croat fans went crazy and cheered more loudly. Match poised well and Aussies in 39th min scored on penalty kick. Half time 1-1.

After break Croats played brilliantly and scored in 57<sup>th</sup> min, but they couldn't hold the lead as Aussies were tough guys, they equalized again in 80<sup>th</sup> min. 90 minutes were over and final score 2-2, a draw, result every Australians liked it and broke Croatian's hearts, sad faces of Croatians really gave us touchy feeling, telling us how much they loved their team. Australia goes into second round. We wished all the best to Australian team and left the Stadium with hearts full of memories.

• Ajay Bidwe



### THE FIRST SNOW FIGHT

For some of us watching the snow falling is something that you only see in the movies. Well this time, in Germany, during the winter we tried to make our "first" snow man! Our inexperience in



this field, after some time of trying and trying... showed us that we were not able to make one, so... the best option was a SNOW FIGHT!

My first snow fight! and it was amazing. We just started throwing snow balls to each other and then to some of the windows of the rooms from our friends.

We had a great time and laughed a lot! But of course after some time we were freezing because we were all wet, so our first snow fight ended!

• Daniela Prado

## The WASTE Club Stuttgart e.V.

### WHY WASTE CLUB?

The purposes of the WASTE Club Stuttgart e. V. are to bring together the organised efforts of members during events planning, to encourage participation more fully in the life of the university as well as the working society, and also to facilitate association among members. The WASTE Club Stuttgart e. V. is also an excellent way for members to continue their lifelong relationship with the study programme as well as the university.

As a member, I appreciate the club more each year – on a personal level, in terms of the outstanding education I received from the WASTE Master's International Programme, and also on a broader level, when I see the important contributions that the students, and alumni are making to the world.

As an accessor to the club, I feel that the club can function as an Alumni associ-



ation for all existing and new members, and is also vital to the growth and excellence of the WASTE Master's International Programme.

Having been a part of the WASTE family for two years, I have already enjoyed the benefits of networking with my fellow classmates and supervisors. Personally, I feel that the club can help every member stay in touch with their classmates and supervisors, as well as keep up with the rapid changes in our industry.

Thus, on behalf of my fellow classmates and colleagues, I would hereby like to invite you to join us. We are currently growing, and every informed and interested members can bring added strength to the club in its pursuit of excellence.

more information:  
[www.waste.uni-stuttgart.de/club](http://www.waste.uni-stuttgart.de/club)  
 • Keng Been Ang

## Where to go in Europe?

### THE TRIP TO PRAGUE

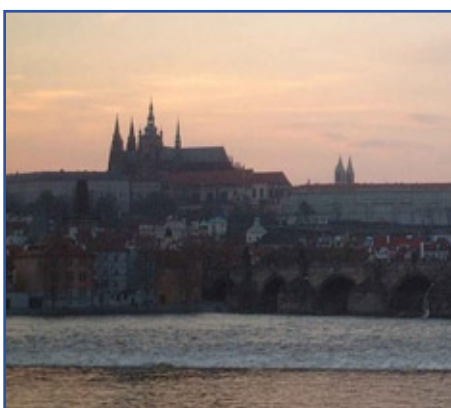
With a population of 1.210.000 inhabitants, Prague is the Capital city of Czech Republic. This remarkable city is listed in the UNESCO World Cultural and Natural Heritage Register since 1992.

The official language is Czech, but you can get around with some knowledge of English or German. The currency is the Czech crown. Prague is not an expensive city; just avoid eating in the main squares!

To go to the home city of Franz Kafka you will need a valid passport and in some cases a VISA. For members of the EU the ID card is enough.

The easiest way to get to Prague from Stuttgart is by plane. Germanwings has direct flights!

Some helpful websites:  
<http://www.prague.net/>  
<http://prague.cz/>  
<http://www.pis.cz/en>



What to see:

- Stare Mesto / Old Town – with the Astronomical Clock
- Josefov / Jewish Town – you can visit some synagogues and learn a lot about the Jewish way of living
- Nove Mesto / New Town – with the Wenceslas Square
- Hradcany – with the Prague Castle, the St. Vitus Cathedral, the Golden Lane and the Franz Kafka Museum
- Mala Strana / Lesser Town – a small replica of the "Eiffel Tower" can be found here
- Vysehrad – the view of the Vlatva River pays off the climbing!
- Charles Bridge – astonishing!

If the stay is bigger than 3 days:

- Karlstejn Castle – less than 1 hour by train, is worth to take half a day to go there!

• Tatjana Pereira Medon



### WASTE NEWS

Newsletter of the study Program WASTE and the WASTE Club Stuttgart e.V.

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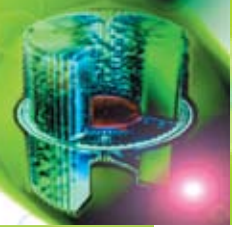
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## WASTE GRADUATION CEREMONY 2007

For almost two years the students of the 5th generation had been waiting for this event, their graduation.

38 students from 23 different countries had decided to take the Master course WASTE in Stuttgart, which had been a quite tough way from the first pre-course on to the Master Thesis and then finally to the graduation.

This festive ceremony took place at IBZ, Vaihingen, on the 22nd of November 2007. Welcoming addresses were held by Professor Bernd Bertsche, Dean of the Faculty of Mechanical Engineering, Program Coordinator Professor Günter Baumbach and Marta Escoto the student representative of the 5th generation.

One highlight of the evening was the speech about the Global Marshall Plan, held by Frithjof Finkbeiner, who is Entrepreneur,

International Coordinator of the Global Marshall Plan Initiative and member of Club of Rome. To the audience he explained the aim of the Global Marshall Plan, which emphasizes having a world in balance. To achieve this ambition we needed a better design of globalization. Mr. Finkbeiner also described the present situation of our world: a world full of discrepancy between the north and the south, poverty, migration, terror, wars, cultural conflicts, and environmental catastrophes. According to the Global Marshall Plan these problems can not be solved nationally but rather by a binding global framework for the world economy.

Further on he demonstrated many options to the students where they might be able to use their acquired knowledge to help decreasing the world's discrepancy. >>> continues



## ISWA TEAM SHOWS RESULTS OF RESEARCH PROJECT AT THE H<sub>2</sub>O VIETNAM 2007

The "H<sub>2</sub>O Vietnam 2007", one important water/wastewater event of South Asia, took place in Ho Chi Minh City (former Saigon) from the 18th until the 21st October.

It was coordinated by the German Federal Ministry for Education and Research. A German delegation shared a stand in order to present results of different research projects. Representing the Universität Stuttgart, researchers of the Institute for Sanitary Engineering, Water Quality and Solid Waste Management (ISWA) showed the final results of the project "Application of Trickling Filters under Different



Country-Specific Influence Factors", which ran within the cooperative project "Export-oriented Research and Development in the field of Wastewater Treatment". A poster and a trickling filter model were prepared especially for this, furthermore the project was presented in details

on the exhibition's symposium at the 19th of October. The trickling filter model, along with filling materials of the cooperation partner 2H-Kunststoff GmbH, proved

to be an effective eye-catcher. Among the visitors were executives of international engineering companies, Vietnamese students and the Vietnamese vice-minister of Science and Technology.

The good response of the visitors as well as the interesting exchange of experience was very positive for the ISWA. Besides many questions were asked concerning the possibility

of studying at the University of Stuttgart. As most of the visitors were interested in courses in English, the flyers of the international master-programs ran out quickly on the second day. Perhaps we can expect Vietnamese colleagues at WASTE in the next years!

• Fabio Chui Pressinotti, M.Sc.

## News and announcements

### AWARD FOR IOSIF MARIAKAKIS FROM THE WASTE-GENERATION 2005

In course of the "82. Siedlungswasserwirtschaftliches Kolloquium" held on 11 October two outstanding theses, written by M.Sc. Iosif Mariakakis from the WASTE generation 2005 and Dipl.-Ing. Christian Kocher respectively, were commended with a prize sponsored by Ingenieurgesellschaft Nussbaum. Congratulations!

**Mr. Iosif Mariakakis, what motivated you to analyze the "Modelling of a trickling filter with focus on biofilm processes"?**

IM: "Trickling filters are attached to growth biomass reactors, which are operated for more than 100 years in the field of wastewater treatment. Under circumstances they exhibit significant advantages such as low investment and operational costs, simple operation, better sludge thickening, good recovery after shock toxic loads. Until now dimensioning and operation of trickling filters has been based on practical experience, e.g. ATV-DVWK, A-281 (2001), that can guarantee a sufficient efficiency, but incorporates difficulties for the design optimization and risks when extrapolating the conditions outside the range of experience. For

other biological treatment process mathematical models have already been proposed, e.g. Activated Sludge Models (ASM-1, -2, -2a, -3). The developer of the activated sludge models, the International Water Association



(IWA) has recently released some proposals concerning the mathematical modelling of biofilm systems. Scope of the Master thesis was the implementation of these suggestions in order to simulate the trickling filter operation. Aim of the thesis was the assessment of the extent of applicability of such a model for trickling filters."

**Was your work part of a research project conducted to ISWA?**

IM: "The master thesis was part of an experimental project conducted by ISWA at the Sewage Treatment Plant for Research and Education of Universität Stuttgart. A pilot-scale trickling filter reactor was operated for over than two years in order to study its municipal wastewater treatment capabilities at high temperatures. The project was supervised and carried out by Fabio Chui Pressinotti, M.Sc., scientific assistant at the chair of Sanitary Engineering and Water Quality Management, field of Wastewater Technology. The data acquired during this research have been used for the development of the model of the current Master thesis."

**Who do you think could benefit from your research work?**

IM: "This Master thesis is meant to contribute to trickling filter design and operation optimisation. The mathematical model developed may be used for testing the effectiveness of a wide range of operating strategies of trickling filters whether they are already built or still in the concept phase. In this way, time, cost and risk of implementing all strategies can be saved. Thus, it is a valuable tool for those engaged in wastewater treatment design."

• Julius Ranghieri

### >>> GRADUATION CEREMONY

The following speech "WASTE: More than a study program, a once in a life-time experience" of the student representative Marta Escoto de Tejada gave a very impressive review about the last two years. Then two graduates, Parik Sirumapea on the guitar and Imelda Leiwakabessy as vocalist, presented their song about the friendships they made here in Germany.

Finally Professor Bertsche congratulated each graduate personally and handed over their WASTE Diploma. From now on every graduate could call himself a Master! This called for a celebration. Every one enjoyed the delicious dinner prepared by the students of the 6th generation, spent the rest of the evening with reminiscing their time in Stuttgart, talking about their future plans, or just having fun on the dance floor.

• Sarika Wahi

### NEWS AT THE WASTE-OFFICE

At the beginning of the winter semester 2007/2008 Mr. Adolf Neuwirth started contributing part of his time to the management of the WASTE Examination Office. He studied Process Engineering and has been working in the Department of Prof. G. Baumbach at IVD in the research field of indoor air pollution.



• Adolf Neuwirth

### NEW WASTE-OFFICE-HIWIS

We would like to introduce us - the new "WASTE-Office-Hiwis". We are the new faces behind the info@waste.uni-stuttgart.de address. Our motto: there are no stupid questions.



Tobias Bunk, Sarika Wahi, Mona Mutz, Stefan Siepe

Matthias and Julius left the office this year for studying abroad. So we organise lots of things around the WASTE program, take care of your problems and look after the WASTE-Website.

Although we don't really know each other, we would like to get to know you. So if you walk alongside our door come in and have a little chat with us.

• WASTE-Office

### DATES TO NOTE

- Waste Intercultural Meetings "WIM" at 5.30 p.m. on 4 Dec., 15 Jan., 12 Feb.
- 14 December: Solid Waste excursion
- 22 Dec. - 6 Jan. 08: Christmas Holidays
- 15 February 2008: Application deadline
- for 7th generation starting in Sept. 2008
- Sept. 2008: Arrival of 7th generation
- 13 October 2008: Start of lecture period
- 20 Nov. planned: Grad. Ceremony 2008

## Studying WASTE

### SOLID WASTE EXCURSION - WASTE SOLUTIONS

Dr. Fischer, lecturer of the "Solid Waste Management" course, organized a waste field trip on the 8th of June 2007. During the trip different techniques and methods of municipal waste management and treatment were explained and presented.



Fermentation plant at the town of Leonberg:

- Mechanical treatment: sieves, magnets, crushing
- Fermentation under thermophilic conditions
- Biogas collection, treatment, transfer to fuel cells, power generation
- Biofiltration of sucked odors by natural wood chops

Waste collection point in Tübingen: Locals transport their waste by car and discard them into separate containers: glass, furniture, carpets, computers, aluminum, and kitchen appliances.

Landfill for municipal waste:

- The gas is collected through gas wells and transferred to generators to produce electricity.

- Leachate is collected by tubes to a room with three towers of activated carbon.

Compost windrow piles:

Food waste is mixed with green waste into several heaps. The heap is turned weekly in order to keep favorable conditions for degrading microorganisms.



Wastewater treatment plant at Balingen:

The sludge is first treated in a fermentor and then dried on conveyor belts powered by photovoltaic cells reducing water content to 25%. The solids are further degasified and used as minerals in asphalt production.

The end of the trip was a visit to the Hohenzollern Castle.

• Karen Mouarkech

### 1-YEAR OF WASTE INTERCULTURAL MEETING "WIM"

Ever heard of the lively tune of vallenato from Colombia that can make you feel like dancing or seen the bone-breaking moves of South Korea's breakdance? Have you ever tasted the mouth-watering krupuk of Indonesia or endure the spicy hot home-made kebab from Pakistan, for free? Or be awed by the Ms. Universe beauties of Venezuela or be offered with more interesting sites from Lebanon, and not the bad images portrayed on television? Experience these and many more from Waste Intercultural Meeting (WIM).

WIM is a great opportunity for the WASTE students to convey what their respective countries have, their amazing cul-

tures, the tasty food and a whole lot more of things that you have not heard before. This intercultural meeting initiated by the



WASTE 5th generation is done for more than one year now, thanks to the support and enthusiasm of the students. Many countries had been presented already, each of them leaving a good impression on what their nations have to offer.

Never miss this chance for a first-hand information about the different countries around the globe in the evening of the first Tuesday of each month. This might give you a perfect idea for a trip in your next vacation.

• Ria Marni Tubaoan

### AIR QUALITY CONTROL EXCURSION TO INFRASERV HÖCHST

Apart from learning the principles and acquiring the knowledge inside a classroom, there are also chances to compare and to experience real life applications developed in Germany. One was the visit to the Industriepark Höchst in Frankfurt, at the end of summer semester as part of our Air Pollution Control lecture. Professor Baumbach showed several industrial applications and real life examples of important topics, which was discussed throughout his lecture. During this trip not only industrial facilities were visited but also other phenomena related with the dispersion of air pollutants in the atmosphere, such as inversion layers which were observed while travelling along the autobahn on our way to Frankfurt. And the analysis of the smoke plumes from stick pipes gave us certain information about the atmospheric dispersion conditions on that day.

Although the policy of the industrial park forbade us to take pictures, the welcoming meeting and presentation held by Infracerv Höchst crew, as well as the obtained brochures, provided us a clear explanation of what we were about to see and also a way to remember the visit: a rotary kiln, for high temperature incineration treatment and a fluidized bed sewage-sludge incineration facility were the main topics. Once we finished this meeting we went to see the facilities of the industrial park in a normal working day. Of course the safety is a main issue in any industrial plant, so we wore the required safety devices. The different components of the incineration systems were shown, as well as their control rooms, where we could take a look at the overall processes being carried out, in fact we could even take a look at the coal used as a fuel to feed them which turn out to come from different places around the world, including native countries of some M.Sc. WASTE students.

From the welcome presentations until the great lunch we had, the visit to Industriepark Höchst was a comprehensive experience that ratifies that theory and empirics always complement each other. It was really helpful in order to visualize some of the topics discussed in the classroom and also to have a look at next topics that are studied in deeper in the following semester, making it easier to understand and providing the students with an extra motivation to keep doing their best.

• Pavel López

## SWEDEN SUMMER CAMP

Before I travelled to Sweden in August 2007 to participate in the annual Bioenergy and Renewable Energy summer courses at the University of Halmstad, I considered the financial implications and potential "lost" work on my thesis. When I told my friend and fellow WASTE student - Olakunle Olatunji, about my doubts, he said, "If you think education is expensive, try ignorance".

The 22 other students in the courses came from 9 countries: Austria, Germany, Columbia, Mexico, Italy, the Czech Republic, Slovenia, Indonesia and Sweden. Accommodation was free, an EU Government feeding allowance was provided, and bicycles were provided to ease transportation.

The lectures started by 9am and ended at 4pm each day. After lunch, we solved calculation problems based on the mornings' lectures, and worked on the course



group projects. At the end of each course, we wrote an examination, obtained our results soon after, and made presentations of our projects.

We made instructive study-visits, and took guided tours of a hydro-electric power plant, a waste collection and combined heating power (CHP) plant, a solar power generation farm, wind power generation



farms, and a nuclear power plant, where we obtained detailed information about the contributions the facilities made towards satisfying the energy needs of the towns depending on them for heating and electricity.

The lectures discussed the environ-

mental, technical, legal and economic issues peculiar to power generation in Europe, and the projects tested the knowledge we had gained from the Bioenergy and Renewable Energy courses:

For the Bioenergy project, we designed 250.000 kWh power plants fuelled by biomass from cattle, grain and forest resources, and analysed their environmental impacts.

For the Renewable Energy project, we assessed the energy demands in chosen countries, selected renewable energy sources feasible in those countries, and designed power plants which would meet the goals of the Kyoto-Protocol.

Overall, I spent an enlightening month in Sweden, and I think more WASTE students should attend the courses to experience the practical applications of WASTE lectures, gain a better understanding of the environmental problems plaguing the planet, and gain useful skills for solving them.

• Oahimire Ejakhegbe

## Recent events

### WASTE SUMMER PARTY 2007

This year we had the famous WASTE Summer Party the fourth time in series! After many meetings and lots of preparation the evening was quickly coming together. Students started setting up tents, tables and music and decorations got installed.

The WASTE Students are not only known as working hard in class, as they showed all of their culinary knowledge by bringing self made traditional plates from all over the world.

After the opening speech of Prof. Baumbach people were having fun sitting together, talking and laughing while they ate the great meal.

But if you thought that was all you got it wrong! Students presented an enormous poster, made from pictures of their

home countries and were having fun while



enjoying the self made Caipirinhas. To get people active, the water balloon fight was a nice activity and helped to cool down in the hot summer night. Visitors proved their ar-

tistic skills by painting little pieces of a big picture while not knowing what the final complete image would look like.

As it was getting dark the dance floor attracted more and more students, motivated by a Salsa dancing introduction, soon almost everyone was moving to the Latin rhythms. People who felt like sitting out watched the dancers from the Oriental styled relaxing area, decorated with water pipes and comfortable seats.

Everyone seemed to be happy to have come to this nice get-together, which was only possible through the help of lots of people and the financial support of the WASTE Club. This event is certainly not to be missed next summer!

• Stefan Siepe



## Life after WASTE

### 

Hello everybody,  
I was invited to write on this Newsletter about my career path after my studies in the M.Sc. Program "Air Quality Control, Solid Waste and Waste Water Process Engineering". I thank the great team of the program for the invitation, and here we go.

Well, let us start with the introduction, my name is León Javier Zenteno Tovar, I was born in Mexico and studied Chemical Engineering with specialization in Process Optimization. Right now I work in Austria for General Electric Energy in GE Jenbacher, the division of Gas Engines, as Product Design & Development Engineer. What exactly does it mean?... it means to work in one of the biggest and most prestigious companies in the world with more than 300 000 colleagues world wide. In my division, with 1 400 persons, we are in



charge to produce gas engines to generate power and heat with 4 MW output. The company is expanding strongly to China, India and Latin America.

My responsibilities in the Fuel & Exhaust Treatment Group are to develop, optimize and design technology for tre-

ating the exhaust gases from the engines. The challenge in this position is to make the technology high effective to fulfil the strict requirements from several countries keeping the investment within the market standards. Therefore I work very close with other R&D groups like Thermodynamics, Control Systems, Plant Constructions, Simulations and Test Bench; and also with other departments like Quality, Production, Sourcing, Services and Product Management. One day I may be working with 20-years experienced technician, an expert in system programming, engineers in components developing or be cooperating with our partners in countries like United States and Italy or be deciding in a meeting the security requirements of such technology or be travelling to countries like Netherlands, Germany or Italy for making tests.

Developing of plants is a challenging task that needs creativity, curiosity, resources and most of all technical knowledge. Part of my job is to identify the up-dates

of technologies, to integrate the customer's expectations and the international and local regulations in the product design process. Finding the optimized output of mixing all these together is my task.

And what the M.Sc. Program has to do with all this?... from WASTE and my work at the Institute of Process Engineering and Power Plant Technology (IVD) I acquired a deeper knowledge in Environmental and Process Engineering, which is the base of my job at General Electric Jenbacher. During my Master's Thesis and my former activities in the IVD I related myself with the Power Generation and Combustions Processes areas by developing plants with Catalytic Plasma and CO<sub>2</sub> Capture.

I encourage the actual and future students during and after their studies to get involved in generation of technology which will lead to how the process will be done in the next decades. If you are curious and like to imagine, solve, build and lead I recommend you to visit the next link: [www.gejenbacher.com](http://www.gejenbacher.com) or [www.gecareers.com](http://www.gecareers.com)

• León Javier Zenteno-Tovar



### 

My name is Jian Chen, I was student of the first WASTE course and graduated in 2003. After my graduation I got a chance to do an internship at Daimler Chrysler in Stuttgart for 6 months. The experience of studying and working in Germany was fruitful and I learned not only everything about the topics of our courses, but also how to be part of a team in a German company and the German language from which I benefit a lot.

I came back to China in 2004 and joined Bosch (China) Investment Ltd. in March 2005. Bosch is one of the biggest German companies worldwide and Bosch China plays an important role in China as well as in Asia-Pacific. I am working for the headquarter of all Bosch business units in China. It has around 250 employees among



which one-fifth are German.

My first working experience was in IT department and I was a team member of the program office of IT Asia-Pacific.

My major task was supporting the Asia Pacific IT Director of Bosch in project management. Though my task had nothing to do with environmental engineering, I enjoyed it and got to know the way of working, which is quite disciplined, with high expectations.

In August 2007 I was transferred to a new department which became the technical pool of the corporate purchasing as the IT headquarter has been moved to Singapore. I found that the working style in the new department was different to the old one, and I am learning again many new things. One of my major responsibilities is the ISO 9001 Audit. I am

working together with my colleagues on preparation for the audit. I like this quality management topic because it is related to my previous work experience. Of course practice is needed to be an internal auditor and it has been planned.

For me the important thing is always to learn something new and in this way I can enjoy my work. Apart from this, language skill is a big advantage in a foreign company like Bosch. Although English is the working language, German is the most often spoken language here besides Chinese. Many German colleagues are even from Stuttgart where the headquarter of Bosch is located. In a word, it is really fun working in such an international team. Some of my classmates from WASTE and WAREM are also working in foreign companies here in Shanghai, the experience of studying at Universität Stuttgart is important and valuable for us.

• Jian Chen

## JENNY ROJAS AT SIEMENS IN ERLANGEN, GERMANY

It is already eight months ago since I got my Master of Science title. Eight months that passed really fast. Since April this year I am working for Siemens in Erlangen. The connection between Siemens and Environment is not that obvious, but it is confirmed that "Environmental Issues" besides being of importance for our societies, can also constitute a lucrative business.

I would say that my career at Siemens starts in the WASTE Excursion to IFAT 2005 (International Trade Fair for Water - Sewage - Refuse - Recycling). There I got a quick inside into the international market for environmental solutions. I experienced that Siemens was already active in this market with some brands like Illinois Water Treatment, Envirex, Memcor, Permutit, Stranco, USFilter, Wallace & Tiernan, Zimpro, among others. Then I saw the chance to achieve some of my goals at that moment: to write my master thesis within an industrial field and to open professional chances for the future.

I wrote my master thesis about the application of membrane technology in the pulp and paper industry. I was in the right place and at the right moment to find a business in expansion process. After fi-

nishing my master thesis I was taken by Siemens to assist the young "Water Team" in developing environmental solutions for the pulp and paper industry. My first tasks met my expectations in the field of detail engineering. I participated actively in designing the first Membrane Bioreactor wastewater treatment plant (currently in construction) for the paper industry in



Germany. Learning was and is still a daily topic. Pipelines, pumps, valves, fittings, instrumentation and construction materials were the first headache. It caused panic at the beginning because I realized that I knew nothing. But once the panic was gone

I came back to old manuscripts, books, etc. It worked. Exciting and boring tasks were part of the way, but the plant is now in construction and that is a nice feeling.

After some months I got a challenging task: to prepare a technical offer for an international bid. A "bit" more responsibility made the job exciting and gave new perspectives to my professional development.

The bid is in process and its realization would be a great chance for my career.

The balance looks positive even though I found some barriers in the way, barriers that looked like that but at the end are thought for learning and growing. I am very satisfied with this experience and with all my experience in Germany: new culture and language, new way of thinking, new way of working, new great people. WASTE was an excellent bridge to these opportunities and I am really thankful for having had the chance to join this family. After some time, even after the exams I had forgot almost everything, but what

I will never forget is the great time that I spent in Stuttgart with unique classmates, professors, administration staff and just nice people. I send a really friendly, thankful and respectful hug to all of them.

• Jenny Rojas

## Funny stories

### LUDWIGSBURG PALACE



My name is Pu Wang, please call me Winne pooh, ^:^^ . I went to Ludwigsburg on 28th of October just for visiting the Ludwigsburg Palace. To my surprise there was a pumpkin market on that day, thousands of tons of lovely pumpkins were shown there. Why lovely? Just look at these pictures.

• Pu Wang



## UNFORGETTABLE NIGHT IN REEPERBAHN HAMBURG

When you are energetic and like night activities, the Reeperbahn is the best place to go at night in Hamburg. I went to Reeperbahn with my neighbors at my last day in Hamburg. We went to a club, called



"Hallo". I took my jacket in a cloakroom of the club and got a ticket which was printed the number for my jacket. Then, we danced

and had great time. When it was time to leave I found out that I lost the ticket. At the beginning, I thought I could enter the cloakroom and find my jacket. Oh no! it was such a naïve idea. The lady who was in charge refused to let me go inside the room and strongly demanded us to show the ticket for my jacket. Later on, she got angry and refused to talk with us. Finally, we called the manager of the club and he got in the cloakroom and found my jacket. The manager asked for my student ID and for one of my neighbor's ID for proofing to check that I was the right owner for the jacket. The manager exclaimed "If anyone would have got the ticket, my jacket could have been given to the person." What a day!!! What a mess. We spent one hour to succeed getting my jacket back. It was a weird and unforgettable night in Hamburg.

• Bong Yong Lee

## THE HEAT WITHIN THE COLDNESS

The feeling of being a fan of a football club was never boiled in me. But the opportunity came on the Saturday October 27th, when five "normal" persons got together in what we thought that would be a "normal" game. Although we were not born



here, this city feels like home to us, and because of that, we needed to support the VFB Stuttgart team, but as I said before, we were normal. The game was full of goings and comings from both teams, even some times, we suffered equally or even more than the Stuttgarters, when the Bayern Leverkusen approached the goal. The game was fear for both, but when you have the

chance to be in the right place at the right moment, you have to take advantage of it, and that's what Beck (Stuttgart's player) did, when that happens, the whole stadium just explodes! And with it, the normal people... the suffering became then joy, and the ecstasy came to all fans, even the naturals or the adopted, and by the way did I mention we had the advantage of being in the middle of the club's fan??. The experience of becoming a fan, was then, honestly fabulous, to be in between a same feeling, with no need to speak German or English or any other word but Tooooo! (Goal!). The faces of everyone, were just full of approval and satisfaction, also were ours, that we went to see the VFB to win, and they didn't let us down. I will remember that day, as the day, we lost our normality, and felt the heat within the coldness.

• Carlos Azucena

## VISIT TO MUNICH

We decided to visit Munich for one day, taking advantage of the cheap price for groups that travel on weekends. The idea was to wake up as early as possible, take the first train and come back late at night. When we arrived there, we hurried to enjoy our time in the city, so we visited the Deutsches Museum, Marienplatz and its surroundings, Nymphenburg Palace, Olympic Park, BMW Museum and the Allianz Arena. By that time everything was perfect, and we were glad about having done a lot in one day, but then we realized that we had forgotten something: we hadn't checked the schedule of the trains back to Stuttgart. We didn't worry much as it was half past seven, but when we arrived to the main train station we found out that the



last train to Stuttgart was already gone...!

What to do? We asked about student hostels and went directly to register in any of them, but imagine our faces, after a long time of walking and searching... there was not a single bed available for us. Everything was fully booked for the weekend. Although a little upset about that sudden change of plans, we then tried to enjoy more of what the city offered and went to the Hofbräuhaus, one of the most famous Bavarian places, and enjoyed its excellent beer. Then we went to eat at the train station and waited for the next train, which was scheduled for 5:45 a.m. Since it was only two o'clock in the morning we had to spend almost four hours in the waiting room for passengers - of course we tried to sleep, but the chairs of a waiting room are not designed for that, and it became completely impossible when a drunk man arrived and started talking to everybody in the room.

In conclusion, that was how we took advantage of our "troubles" and visited one of the most beautiful places I've ever been, for that reason now I can tell that if there's a place where missing a train is a good option, that has to be Germany!

• Pavel Lopez

## The WASTE Club Stuttgart e.V.

### MERCEDES-BENZ MUSEUM EXCURSION

On October 16th, the WASTE Club organised an excursion to the Mercedes-Benz Museum. All of us came with a lot of expectations because we were having a special tour called "Technical Fascination" that was not open to visitors all time. First we obtained an audio guide system, which is free of charge in 5 languages and in one and a half hour, we got to know the history of the firm "Mercedes Benz".



We completed our visit with the special section called „Technical Fascination“ that invites one to see the ways in which automobiles are designed as well as how engineers work daily to look toward the

future. The guide in the laboratory showed us future techniques for driving cars. For instance, automobiles in the future will not have steering wheel, they will have a central joystick. Another innovation is that each of the wheels will have a greater range of movement and individual turning radius. Additionally, we also saw the design of the control-board of controls and electrical part of the automobiles. Moreover, the guide explained about the sounds produced when the automobiles were driven (test car with internal sounds). The experience was totally amazing. While some of us were listening to the different sounds produced in the test car, the others were looking at the type of materials from which automobiles are constructed. In the last part of our visit to the laboratory, we saw clay models portraying the steps for designing a new version of an aerodynamic car.

The excursion was incredible and all of us hope to go back to the museum because the experience will be better each time. I suggest to students of WASTE Program to visit Mercedes-Benz Museum before leaving Stuttgart.

• Carlos A. Pacheco



## Where to go in Europe?

### GREECE - HELLAS

The real name is Hellas (Ελλάδα)!

Regarded as the cradle of western civilization and the birthplace of democracy, Western philosophy, the Olympic Games, western literature, political science, major scientific principles and drama including both tragedy and comedy, Greece has a particularly long and eventful history and a cultural heritage considerably influential in Northern Africa and the Middle East, and fundamentally formative for the culture of Europe and what may be called the West. Modern Greece is a developed country and a member of the European Union since 1981. Athens is the capital. The population of Greece is 10.688.070 and



is located at the southeast end of Europe with a Mediterranean Climate and Greek Orthodox religion. Greece has been through a lot of wars including against the Ottoman Empire, the Greco-Turkish war, the Greco-Italian war, the Germans in the WW2 and a civil war. She had many wounds, but has recovered with the years.

Now Greece is a very popular historic destination because of the famous Parthenon and the Acropolis, the ancient Olympia and many other things. As it is one of the best destinations for summer vacations, so if you love summer, beaches, night

life, you can visit Hellas!!!

• Natalia Tziveni

## WASTE NEWS

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