

digest

January - March 2015 Issue



A Sustainable
Future
p.4-7



A Home Six
Thousand Miles
Away
p.10-11



TUM Alumni:
First Female
Italian Astronaut
p.16-17

CONTENTS

IN THIS ISSUE

- 03** Director's Message
- 04** A Sustainable Future
- 08** Overseas Immersion Programme: A Home Six Thousand Miles Away
- 12** Alumni Interview: The Next Generation Workforce
- 14** GAST Conference
- 16** TUM Alumni Interview: Samantha Cristoforetti
- 18** The Chatter



A HOME SIX THOUSAND MILES AWAY

Travelling to Munich is an amazing opportunity that TUM Asia students get to experience



THE NEXT GENERATION WORKFORCE

TUM Asia's fresh graduates making a global impact



GOLD AWARDS

Great achievements for TUM in the year of 2014

ON THE COVER

A Sustainable Future - TUM Asia (Photo 1)

A Home Six Thousand Miles Away - Timothy Lim (Photo 2)

TUM Alumni: First Female Italian Astronaut - Samantha Cristoforetti (Photo 3)

This newsletter is published by:

Office of Corporate Communications
Technische Universität München Asia
10 Central Exchange Green
#03 – 01 Pixel Building
Singapore 138649

Tel: +65 6777 7407

Email: info@tum-asia.edu.sg

Website: www.tum-asia.edu.sg

Facebook: www.facebook.com/tum-asia

CPE Registration No. 200105229R (13/06/2011 - 12/06/2017)
German Institute of Science & Technology – TUM Asia Pte Ltd

director's message



First, I would like to wish all our readers a Happy New Year. I hope 2014 was a great year for you. At TUM Asia, 2015 is a special year in our calendar due to the double occasion of Singapore's 50th birthday celebrations and 50 years of friendship between Germany and Singapore. With these celebrations, we start the year afresh with "New Beginnings", also the theme that the DIGEST team has chosen for this opening issue.

The first new beginning you might have noticed is the change in our DIGEST newsletter design. This year, we are starting a new initiative that allows our students to contribute articles in our newsletter. One of our two pioneer writers, Angelina Tan, interviewed an expert on the topic of urban sustainability. To find out more about what Dr Tobias Massier, principal investigator at TUM CREATE, had to say about urban sustainability and its impact on Singapore, read the interview on pages 4 to 7.

Following the same theme, we caught up with our latest graduates to find out what they have been up to since graduating in 2014. Vanessa Schell recently started her new job with Deutsche Post DHL at its headquarters in Bonn, Germany. Vanessa is a German native who has worked in China for over four years before she took on our Masters in Transport and Logistics. Her job with DHL is definitely a new beginning for her. Flip to pages 12 and 13 to have her tell you more about returning to Europe on a new job after her time in Asia.

New beginnings are not limited to what we do at TUM Asia. Our university, TUM, is renowned for pioneering change in the scientific and technological communities. One such pioneer is Samantha Cristoforetti, a TUM alumnus who was chosen as the first female astronaut in Italy. Among many applicants, she was chosen to be part of the Futura 42 mission for the European Space Agency. She was recently sent to the International Space Station (ISS) in November 2014. You can turn to pages 16 and 17 to read the interview on Samantha's journey from studying Aerospace Engineering at TUM till becoming an astronaut.

As we kick off the New Year, I would like to thank our readers, students, partners and alumni alike who have supported us throughout the years. We look forward to greater partnerships and successes in 2015. Enjoy the new DIGEST!

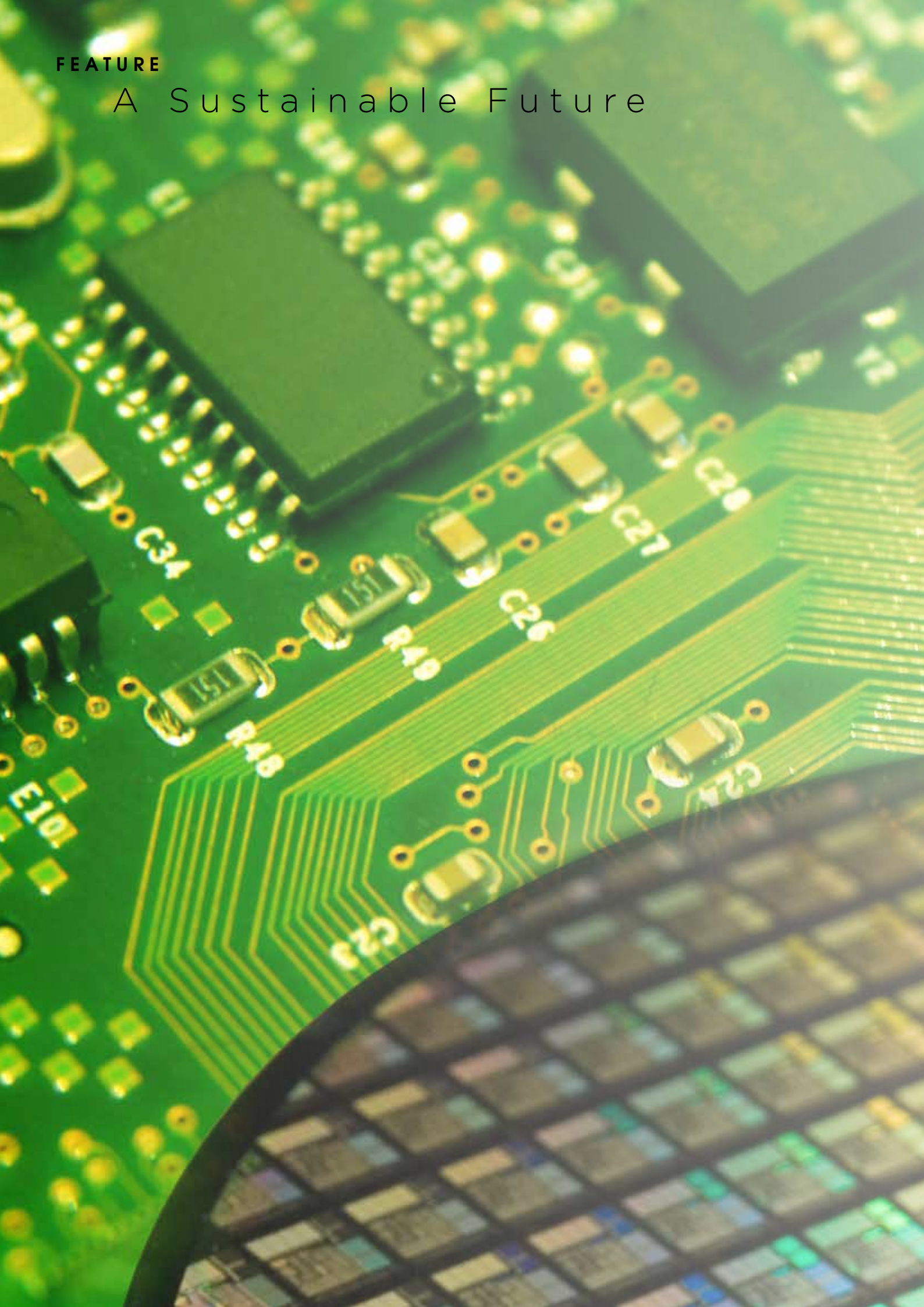
Yours Sincerely,

A handwritten signature in black ink, appearing to read "M. Wächter". The signature is fluid and cursive, written over a light grey background.

Dr. Markus Wächter
Managing Director, TUM Asia

FEATURE

A Sustainable Future



“

**We are
using up our
resources
faster than
they recreate.
Sustainability
is extremely
crucial.**

Dr. Tobias Massier
Principal Investigator at
TUM CREATE

”



This article was contributed by student writer, Angelina Tan

It is no secret that people are living longer and that the global population is on the rise. In fact, the United Nations (UN) project that there will be more than 10 billion people living on the Earth by the year 2100. This explosion in population is perhaps one of the greatest reasons why sustainable development is very important. At the pace the present inhabitants of earth are dwindling resources, especially that of energy related resources; the earth might very well be uninhabitable for the future generations to come. Sustainable solutions are extremely important for the betterment of society.

Sustainable development solves the challenges of the present without compromising the environment further for future generations. However, when and how can sustainability be practiced? To answer these difficult questions, we approached Dr. Tobias Massier, Principal Investigator at TUM CREATE who shared with us his thoughts on the topic of sustainability.



Photos: TUM and TUM Asia

Dr. Tobias Massier believes that using 'green energy' for manufacturing, and increasing energy efficiency are some solutions used by companies to ensure sustainability. One green product that sprouted is 'Green Concrete' where incinerated fly ash, considered to be a 'waste' material, is used to replace cement due to the large amount of greenhouse gases produced by manufacturing cement. According to Dr. Massier, one of the most frequently used green products is LED light.

“LED lights consume much less power than conventional or energy saving lamps. In recent years, they have become much better and prices will go down.”

There will be increasingly more engineers needed to develop green methods and buildings, as well as in the electronics sector to create products that comply with environmental regulations. They will also develop methods to clean up existing hazards. Large corporations around the world have taken the lead to invest in green innovation, which addresses the challenges of materials and energy efficiency.

And for companies to be able to pioneer change, it starts with the staff and new talent. Universities and institutions must pioneer change by incorporating topics on sustainability in the curriculums.

“Young minds must be trained to think green, to learn that the creation of new products must not be at the expense of future generations.”

Dr Massier believes that universities must turn their attention to this pressing global issue. In his push for reform, he found a partner in TUM Asia.

Reflecting TUM's values, TUM Asia sees itself as serving the Asian region, which is facing new and greater challenges in the course of progressive globalization. In the recent decade, the topic of environmental sustainability has been a huge emphasis around the globe. Concerns among the general population have resulted in the spur for demand for sustainability and environmental engineers. There is a shift in emphasis in preventing problems rather than controlling those that already exist. Improved energy management and renewable energy are areas with increased demand. Some of the trending topics in Singapore

include SMART cities and sustainable electronics.

Being committed to innovative progress in scientific fields that sustainably improve the lives of people, TUM Asia saw this as an important area to address. This is in line with TUM's fundamental remit to serve society. Thus, Dr Massier has worked with the team at TUM Asia to launch a new Master programme in Power Systems and Energy Management. This is a timely answer to the call of talent as ASEAN looks to build a power grid that trades electricity among countries, ultimately making electricity cheaper for the people.

“This Masters degree aims to “equip engineers with knowledge in both the technical and management sides of Power Systems”.

The second initiative launched by TUM Asia is the revamp of an existing programme, to meet the changing demands of the industries. The joint NTU-TUM Master of Science degree in Microelectronics has been given a makeover, now known as Green Electronics. Modules such as “Bioelectronics” and “Green Nanotechnology” will be introduced, with a total of 10 new modules in the programme.

Being ranked #8 in the world in the 2014 Global Employability University Ranking, TUM graduates are widely sought after by companies in high demand industries. These two courses aim to tackle the sustainable problems faced by the world today. By offering impactful degrees that are relevant to the industry, our graduates add value to high demand industries. These programmes also allow our graduates to go on and contribute to the green movement across the globe. Who knows, maybe the next big sustainable invention will be created by a TUM student!

Applications are open for the Master of Science in Green Electronics and Master of Science in Power Systems & Energy Management. Find out more about the degrees on www.tum-asia.edu.sg.



A Home Six Thousand Miles Away



Towards the end of every TUM Asia student's academic journey, comes the opportunity to travel to Munich, Germany. In this issue, the DIGEST team speaks to Goh Qi Yao, Michelle Tan and Kim Hyemin to learn more about their experiences in Europe.

Hi everyone! Maybe you can tell us how your overseas experience was like?

Qi Yao: It has been a new and enjoyable experience filled with much laughter and adventures. During the stay in Germany, we looked out for one another and treated each other like family.

Michelle: I really enjoyed travelling with my classmates. There are no problems if you travel with people that you are comfortable with. We also visited many wonderful cities in Europe, such as Berlin to witness the 25th year anniversary of the fall of the Berlin wall, the Principality of Liechtenstein, and cities in Austria and Italy.

Hyemin: It was really exciting to be able to travel to Munich. I was able to enjoy the atmosphere of the city in Munich and it felt terrific to explore places that I had never ever visited in my life.

Munich and Singapore are quite different from one another. Can you share with us some of the unique characteristics you noticed in Munich?

Qi Yao: Although Munich is just half the size of Singapore, it is very rich in history and has an elaborate train network system consisting of over 18 different lines. There are also very few high rise

buildings in Munich which allows one to enjoy the view of the skies. In Munich, the people are very friendly and they will not hesitate to assist you if you need help. However, like all winter seasons, the climate in Munich during these periods can be very cold and dry, so that's something we had to get used to.

Michelle: In Munich, the staples are bread and kebabs, especially because they are student-wallet-friendly. Despite food being readily available, most of us prefer to cook. It's easy to find a supermarket. There are also Asian markets and Muslim markets for specialized foods and you can use Google to look up what you cannot find. It was a different experience living in a country where Asian comfort foods are not as readily available. One thing that was new to me was the fact that public transport runs on a fixed timing and you have to be punctual!

Have you had any memorable experiences on TUM's campus?

Qi Yao: The most memorable experience at TUM would be the thrill of sliding down the two giant slides located inside the Faculty Building for Math and Computer Science! They start from the fourth storey and descend to the first floor. We were also



Michelle Tan
 Bachelor of Science in
 Electrical Engineering
 and Information
 Technology



well taken care of by the TUM staff, lecturers and fellow students at the campus.

Michelle: For us Electrical Engineers, our campus is located in the city center, which was vibrant. Going to TUM did not feel like I was going to school to study and that was memorable for me. Studying in TUM was relaxing but disciplined.

Hyemin: I took a class for flight simulation that made me feel like I was actually flying in reality. It was a very rare chance to board a small aircraft that went through a practical flight experience.

Where are some of your favourite places that you would recommend to visit in Munich?

Qi Yao: After a tiring week in school, we like to spend our weekends immersing in the natural scenery surrounding Munich. Munich is very close to the Bavarian and Austrian alps, so there are many beautiful mountains and lakes which is just a train ride away.

Michelle: There are several small restaurants that I really enjoyed. You must go to Oktoberfest if you are there in early October. The atmosphere was incredible. Some other places that I liked are the mountains and lakes, such as the Bavarian Alps, Tegelberg, Füssen, Königssee and Zugspitze.



Photos: Michelle, Timothy and Qi Yao

At TUM, students are able to advance their studies all while experiencing a truly 'international education'. How do you feel that you have benefitted from this overseas exchange?

Qi Yao: We are able to pick up some basic German language due to our time in Munich. Furthermore, we have the privilege to explore Europe and experience different cultures. This makes us culturally sensitive.

Michelle: You are able to experience what it is like living and studying in a different environment and you learn to have self-discipline. Being able to immerse yourself in a different culture, language and new lifestyle was very enriching.

Hyemin: You gain valuable experience and knowledge. Being in the home campus, you also get first-hand experience of the culture.

Your thesis is meant to be a practical experience that prepares you for the first step into the workplace. Do you feel that this thesis project has helped you to do so?

Qi Yao: To complete my Bachelor Thesis while having a tight schedule and being in a foreign country at the same time taught me to be adaptive, independent and self-motivating.

Michelle: The Bachelor Thesis helps us learn the importance of time management and teaches us to overcome difficulties on our projects.

Hyemin: The opportunity to travel to TUM for my thesis opens the door for me to find a full-time job in Germany. As I am working on my thesis, I will also learn German intensively to prepare myself for the German workplace. This is a great opportunity.



Goh Qi Yao
Bachelor of Science in
Chemical Engineering

Photos: Michelle and Qi Yao



Now that you are coming to the end of your academic journey with TUM, what thoughts do you have looking back on your educational experience?

Qi Yao: It has been a fruitful time. What helped was to be able to meet wonderful classmates that I can rely on and laugh together with. At the end of the day, I am proud that I took on these challenges, overcame them and will be graduating as a qualified chemical engineer from a world-class university.

Michelle: I feel completed now that my academic journey is coming to an end. My TUM education was very memorable and I made many good friends that would stay with me for a lifetime.

Hyemin: This programme allowed me to get a TUM degree and to meet many wonderful professors. Without the encouragement of my professors, I would not have gone to Munich.

We'll ask this question on behalf of your juniors: Can you share some advice for those going to TUM next semester?

Qi Yao: As with engineering, the programme can be demanding at times. Do work with your peers to tackle problems and never ever hesitate to consult the professors. Most importantly, stay positive, it will work out!

Michelle: "If the seniors can do it, so can you!" Our education was definitely a challenge. However, once you survive through the storm, you will see the rainbow!

Hyemin: I would strongly recommend learning some basic German. Though you can get around with English, it is good to learn some German. I regret not picking up some German before heading to Munich. Don't make my mistake!



The Next Generation Workforce

What opportunities are there for a fresh graduate from one of the top universities in Germany? In this issue, the DIGEST team speaks to one recent graduate to find out about this new chapter of her life; working in Deutsche Post DHL.



Vanessa Schell

Master of Science in Transport &
Logistics
German, 28 Years Old

Hi Vanessa, we know that you were not born and raised in Singapore. What made you decide to do your Masters here?

Yes, I am German by birth. But my parents lived abroad in their twenties, thus, I was actually born in Brazil. I grew up in West Germany and was always curious of other countries and cultures. During my undergraduate business studies, I was fascinated with Asia. I went to China on a four month internship that turned into two and a half years of internships, thesis research and Chinese studies. After that, I was determined to pursue a specialized Masters programme in the logistics field in Asia. I came across TUM Asia's Transport and Logistics programme - which was exactly what I was looking for and it is a German degree. I recall arriving in Singapore's Chinatown in the summer of 2012 with two big suitcases ready to start my new life!

What has it been like studying with TUM Asia?

The part I enjoyed the most was the international experience. My classmates came from seven different countries and cultures, yet we became good friends. We bonded over beer, sports and a variety of life experiences and opinions regarding our studies. The learning atmosphere was more intimate and it was easy to get to know students of other courses. I could directly approach professors and staff, which was a very welcoming experience. Singapore was great! The people are warm-hearted, open and polite.

You recently graduated from TUM Asia, how has it been like being out in the workforce?

I was actually looking forward to starting work and getting my hands on what I had studied. With Bonn as my home town and home to the headquarters of one of the world's leading logistics service providers, Deutsche Post DHL (DPDHL), I applied for their corporate trainee programme and was accepted. The programme is tailored for graduates and prepares you for a specialised or executive career within the company. I had the opportunity to work in the department dedicated to the global procurement of DPDHL's ground fleet. With my previous experience in automotive purchasing, it was the perfect fit for my professional and scientific background.

What has it been like working in a major global company like Deutsch Post DHL?

Being part of a company with logistics as its core competency is fascinating, particularly, in the purchasing function as it is directly related to the business fields of DHL Express or DHL Supply Chain. The diversity of businesses and the global footprint of DPDHL are strongly noticeable. Dealing with vehicles as a purchasing object feels exciting as vans and trucks are both technically complex and simple, tangible objects that everyone can identify with. Since I started with DPDHL, barely a van or truck passes my way without being inspected.

You mentioned that you were in the Graduate Programme. What have you been learning from it?

It is hard not to continuously learn at my job. My learning process currently circles around different kind of vehicles, suppliers, DPDHL business fields, global structures or market trends and strategic developments. The trainee programme provides enormous support from exchanges among trainees and activities to better understand the business.

Have you been able to be creative and take charge of the tasks you are assigned with?

Yes, and I have my Masters course to thank. TUM Asia's programme structure allows us to learn technical theory and carry out hands on applications. Leading my own project at DHL meant having to design a project plan, set up a timeline and milestones, define internal or external parties involved or tools used, and to present the status and advancement regularly to my supervisor and relevant interest groups.

As a fresh graduate, how has your Masters degree benefitted you?

It has certainly prepared me well for the logistics business. Just a few weeks ago I was standing in front of the sorting machines of the DHL Express hub and I recalled the sorting techniques and videos from our material handling classes. I was looking at the exact same machines I had seen on a screen in the classroom in Singapore. The knowledge I had learnt was relevant to my job and that was astonishing to me.

Lastly, any advice you would give to fellow TUM Asia students about to enter the workforce?

You should always be open and humble to learn because real work life writes its own books, on the other hand you have to be self-confident and proactive with all challenges which you might face.

Vanessa studied at TUM Asia to obtain her Master of Science in Transport and Logistics, conferred by TUM. Find out more about our 18-month programme on www.tum-asia.edu.sg.



Photo: Vanessa Schell

GAST Conference

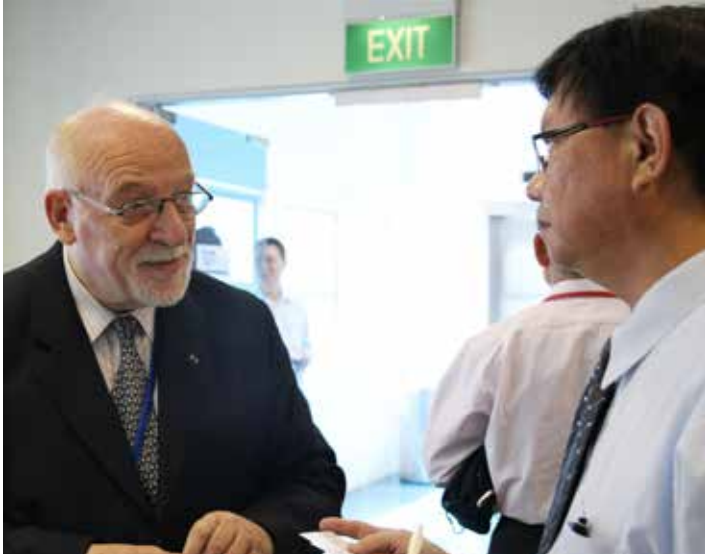


This article was contributed by student writer, David Chandpen

On 31st October 2014 the 5th GAST Travelling Conference was held at TUM Asia, Singapore. The GAST Network that stands for the German - ASEAN Science and Technology Network, is initiated by the German Ministry of Education and Research and has established partners in Indonesia, Malaysia, Singapore, Thailand and Vietnam. This year, the GAST Travelling Conference was held in several cities - Ho Chi Minh City, Bangkok and Singapore. TUM Asia was proud to be the host for the event in Singapore.

Every year, the GAST Travelling Conference unites leading experts from Germany and Southeast Asia to discuss the challenges faced as society advances. This year's topic was about Information Technology (IT) Security. The number of cyber-attacks has increased throughout the years as humanity takes another leap in technological advancement. As everyday activities become more computerized, one has to be cautious about security. The topics for this conference included: automotive security, cryptology and encryption, LAN security, Trojan and viruses, honeypots and tarpits, and security in Public Supply Networks. The conference was open to all interested individuals in the industry and the public with compliments.

Speakers included Dr. -Ing. Michael Pehl, Technische Universität München; Mr. Philipp Mundhenk, TUM CREATE and Prof. em. Dr. Dr. h.c. Otto Spaniol, RWTH Aachen. Participants were exposed to a range of topics in I.T. security as the speakers had a part in answering questions and providing expert insights in IT security. Everyone had a great time and we look forward to new insights at next year's conference.



Photos: TUM Asia

Astronaut Samantha Cristoforetti

The astronaut Samantha Cristoforetti studied Aerospace Engineering at the Technische Universität München and was one of the first women to be trained as a combat pilot with the Italian Air Force. In November 2014, the time has finally come: the TUM alumna will be part of the mission Futura 42 for the European Space Agency. She will be living on the International Space Station (ISS) for six months. The 37-year-old Italian has been preparing for her space mission for the last six years.

Where is the ISS actually located?

It is not that far away to be honest. It is at a height of about 400 kilometres, which is called low Earth orbit. The ISS is on an inclination of 51 degrees. If you imagine a map of the Earth, the ISS travels between 51 degrees north and 51 degrees south – and the line keeps moving a bit to the west, meaning that the space station regularly flies over places on the Earth that are located between 51 degrees north and 51 degrees south.

What duties does mission Futura 42 include for you? Who carries out the experiments on the ISS?

As flight engineer, I will be responsible for the launch of the rocket, for docking onto the space station and for the re-entry into the atmosphere on our return flight. Most of the tasks on the ISS can be managed by all of us as we all had the same training. I will do scientific work and maintenance work on the space station when it needs servicing. There are also logistics, such as if a space freighter arrives, we must unload and load it again. Cleaning is normally scheduled for the weekends. Sometimes there are special tasks such as a spacewalk or working with the Robot arm.

What about space junk? Is the ISS able to dodge that or is it not a problem?

Yes, the ISS is able to dodge it. The United States Strategic Command uses radar to monitor all objects in orbit beyond a certain size. Now and then, NASA will receive a call: “There is some possibility of a collision with the space station!” The administration will monitor the situation closely and carry out calculations. If the probability of a collision is larger than 1 in 10,000 – yes, we really play it safe – action will be taken. It is not like the movies where someone manoeuvres around an obstacle manually with a joystick. The engines will

be turned on for a little while in order to change the speed and the flight path slightly.

What will you enjoy most during your stay on the ISS?

Everyone is enthusiastic about a spacewalk, which is obviously something very special. For me, there are no such plans at the moment, as it is not very possible. A spacewalk is extremely dangerous, difficult and complex; not only for us astronauts, but also for all the ground personnel. There are also high costs. If there is something that needs to be fixed or replaced by a more modern component, then a spacewalk will be carried out as it is absolutely necessary! Spacewalks are not about science, but about maintenance.



In 2008, when you were chosen as a future astronaut from 8,400 candidates, were there other female competitors?

Yes, of course. The ratio was about the same as it is in the current team – one female astronaut to six male.

Why are there so few women in your field of work?

There aren't really that few, if you look at the Western world. Since the late 1970s, there has been an increase in female astronauts. As they have all managed the tasks that had to be done, they themselves have already proven what the world thinks women cannot do; that women can be astronauts. I am proof of this!

What memories do you have of your studies?

I have really good memories of my studies and my student life. I was in the student council for several years and lived in a student residence in Garching. There are probably more residences in Garching now but back then, there was only one small residence and everyone knew one another.

Last question, what advice would you like to give to TUM students?

My advice is that they should study with passion; that they shouldn't just learn for the sake of learning, but that they have a goal – an idea of what they would like to make of their lives. This is the best thing you can do for yourself: developing a vision to work towards.

This interview was conducted by Annette Marquard/ KontaktTUM. All information are courtesy of KontaktTUM Issue 2/2014.



Moments before Samantha took off to space



Photos: Samantha Cristoforetti, Facebook



Samantha's view over Tannum Sands, Queensland, Australia

The Chatter



Photo: TUM CREATE

Transportation And Traffic Engineering

The urban transport system is the lifeline of a city; linking people to each other, to goods and to services. It often plays a key role in the economic viability and liveability of a city. TUM CREATE recognizes that addressing some of the challenges of urban transport planning requires a holistic approach. The Department of Transportation and Traffic Engineering (RP10) focuses on two main research strategies in this area: research on the implementation of electromobility and on the advancement of selected major features in the urban transport system.

Electromobility, (or electrified transport systems) holds a great potential for drastically reducing vehicle emissions. While the technology and current product offerings could arguably still be in its maturing stage, the market does seem to be ready to adopt it for the future. The research at RP10 aims to assist the management and mitigation of major systemic and infrastructural barriers to electromobility adoption in Singapore.

The topics are diverse. Among them is the research to improve the efficiency of the very futuristic electrified roadways through an innovative pre-cast concrete pavement system. Related to that is the development of a methodology to identify the most appropriate locations for charging infrastructure installation.

Furthermore, two evaluation frameworks are being constructed. One is to enable strategic fleet purchases for urban logistics operations. And the second is an approach for the quantification of emissions caused by road traffic, as a means to enable better and more environmentally-friendly policymaking.

Just as important as electromobility is the improvement of various urban transport elements in place. A public transport network model of Singapore has been developed, and various analyses on the potential for enhancement in the services have begun. For example, through increasing the integration and coordination of the diverse public transport services available in Singapore, such as taxis, car sharing, bus and train services.

Additionally, in order to improve the utilization of the limited number of taxis on streets, one of the projects aims to develop algorithms to seamlessly and efficiently match taxis with bookings.

Another example of our research in existing systems is the enabling of an adaptive traffic signalling system, which takes advantage of the diversifying types of data sources, such as vehicle telematics, and traffic sensors. Such a system would enable traffic engineers to optimize the traffic flow in the system based on any set of criteria selected by policymakers.

TUM CREATE certainly has its work cut out. However, forward looking and facing the urban transport challenges head-on will contribute to sustainable development of urban areas in Asia and the rest of the world.

Info: TUM CREATE Ltd.
www.tum-create.edu.sg



Photo: TUM

Youngest Scientist In TUM's History To Be Honored With The 2014 Leibniz Prize

TUM academics are regularly honoured with major science awards. Prof. Dr. Hendrik Dietz from TUM has been awarded the Gottfried Wilhelm Leibniz Prize of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation). The 36-year-old biophysicist is the recipient of Germany's most prestigious research award, which is endowed with 2.5 million euros. His research into the mechanical and structural properties of proteins has opened up completely new horizons for the development of DNA-based "nanomachines". TUM President Professor Wolfgang Herrmann, who nominated the young prizewinner, welcomed the news: "With Hendrik Dietz, we now have four Leibniz prizewinners in the TUM Physics Department. This confirms our status as a top research university and is a glowing endorsement of our new appointments and career system." The Leibniz Prize, which has been presented annually since 1985, is designed to improve the working conditions of exceptional scientists and give them the opportunity to expand their scope of research.

This article, courtesy of TUM, is extracted from <http://www.tum.de/en/about-tum/news/>.



Photo: TUM

Bagging Top Honours

As one of the top universities in the world, Technische Universität München (TUM) is constantly being recognized for achievements by our university and students. TUM achieved eighth place in the 2014 Global Employability Ranking, cementing its excellent reputation as an educational institute for young academics who are much sought after in international job markets. The ranking is based on a survey of almost 5,000 HR managers and employers from industry and commerce in 20 different countries. The most recent results have been published in The New York Times and The Telegraph.

TUM Asia also made history at the 10th QS Asia Pacific Professional Leaders Education (APPLE) Conference and Exhibition, bagging the Gold Award for "Best Print Advertisement 2014" in the QS Creative Awards. The Gold Award came as a surprise as TUM Asia was up against many worthy competitors, such as Nanyang Technological University (NTU), The Hong Kong University of Science and Technology (HKUST), Nottingham Trent University, Taipei Medical University and more. This award validates the presence of TUM in Asia and Singapore, marking the achievement of our initial vision to transfer the technological expertise in Germany to Asia and vice versa.

“With an education that will outlast the trends of change, we are ready to combat the challenges of TUMorrow”

**APPLICATIONS
ARE OPEN,
APPLY NOW!**
tum-asia.edu.sg

Wang Cong

Graduate Fellowship (PhD Student)
Singapore-MIT Alliance for Research & Technology (SMART)
Master of Science in Microelectronics

Wong Kye Howe

IC Design Engineer, Lantiq Asia Pacific
Master of Science in Integrated Circuit Design
Industrial Scholarship Recipient (Lantiq Asia Pacific)

Nurhidayah Basri

Research Officer
Bioprocessing Technology Institute, A*STAR
Master of Science in Industrial Chemistry

Richard Tan

Project Engineer, Leading Electronics & Communications Organization
Bachelor of Science in Electrical Engineering & Information Technology

Saravanan BJ

Project Engineer
Rolls Royce Singapore
Master of Science in Aerospace Engineering

Dr. Jennifer Ziriakus
Head of Faculty, Chemistry
TUM Asia

Prof. Dr. Fritz Kühn
Head of Molecular Catalysis
Faculty Dean of International Affairs / Faculty Graduate Dean
Teaching Professor, TUM Asia



Technische Universität München. Germany's #1 University*.

Bachelor & Master programmes available for you today.

Find out how you can get an education that will be world relevant at every point of change at www.tum-asia.edu.sg



facebook.com/TUMAsia



graduate@tum-asia.edu.sg

TUM Asia is a 100% subsidiary of the Technische Universität München / www.tum.de. TUM Asia is recognized as an Institute of Higher Learning (IHL) in Singapore. CPE Registration No. 200105229R / Reg. Period: 13/06/2011 - 12/06/2017

*As rated by Academic Ranking of World Universities 2011, 2012, 2013 and QS World Rankings 2012/13