

Verbinden

German to English Definition: To link up, to connect together

A bi-annual Alumni newsletter from Technical University of Munich (TUM) Asia

SPECIAL EDITION 2018 // 06

TUM Asia Celebrates
15 YEARS!



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TUM Alumni Network

More than 65,000 TUM alumni and current students form the TUM network. As an alumnus, you can benefit from your Alma Mater even after graduating. Interact with others in your area, get in touch in real life or virtually, and benefit from these connections for the rest of your life! Find out ways you can benefit as an alumnus. Register now at together.tum.de.



COMMUNITY

Register your profile on the TUM network and be part of the global community. Create your own interest group or interact with alumni from all over the world.
www.together.tum.de/en/



CAREER

Looking for job opportunities in another country? TUM's online job portal offers a variety of job positions all over the world, made accessible by a click of a button.
www.db.alumni.tum.de/jobs?language=en



ALUMNI SERVICES

Keep in touch with the latest news and events from TUM and TUM Asia. Make sure you keep an updated profile so all campus news can reach your email inbox.
www.tum-asia.edu.sg/community/alumni/



EVENTS

TUM and TUM Asia organizes regular events and workshops that can further develop your professional skills. Alumni events such as Stammtischs will also be a great time to catch up with friends.
www.facebook.com/tum-asia



PUBLICATIONS

Get the news on who's who in the various newsletters and magazines published by the university. All publications are made available in English so you can definitely enjoy the articles within!
www.tum-asia.edu.sg/media/newsletter/



SUPPORT

As an alumna or alumnus, you can support our students in many ways. Through sharing your expertise and experiences in our newsletter, you are able to offer insights into your professional everyday life.
info@tum-asia.edu.sg



Director's Message

This year marks a significant chapter for TUM Asia as we cross our 15th year of operations in Singapore. It is especially special to us as this also coincides with our home university's 150 years of excellence. This issue is dedicated to commemorating the journey of TUM Asia in the last fifteen years as we look back on some of the defining milestones that contributed to our present success.

TUM Asia started operations in 2002 to serve as an educational hub to enhance local and international talents in Asia. From a first cohort of twenty students, TUM Asia has grown to see over a thousand students come through our doors. TUM Asia's network of alumni has grown steadily through the years, consisting of professionals, researchers and entrepreneurs that come from all over Asia and beyond. They each bring with them a unique story of their own, be it through their personal, academic or professional achievements. In this special issue, we will be featuring some of these exciting stories from our graduates. Amongst them are also some of our pioneer alumni, who joined us in our early years.

As we celebrate our 15th anniversary, all of us at TUM Asia would like to thank all alumni, students, staff and dedicated partners for their continual support through the years. Without whom, TUM Asia will not be standing where it is. We look forward to another fifteen years of success!

Yours Sincerely,

Dr. Markus Wächter
Managing Director, TUM Asia

A Journey of 15 Years



2002 - 2003



Launch Of GIST

German Institute of Science & Technology (GIST) was set up in 2002 as the first German academic venture abroad.

First Master Programme

TUM offered her first overseas degree programme in Industrial Chemistry, in joint partnership with the National University of Singapore. (NUS)

New Joint Master Programmes

GIST partners with Nanyang Technological University (NTU) to offer new joint Master degree programmes.



2004 - 2005



2006 - 2007



Nurturing Leaders

The early years saw GIST start new Master programmes relevant to the changing needs of the industry. The graduates of GIST soon formed a growing pool of skilled talent and a rapidly maturing workforce.

New Home, New Name

GIST moved to a new home in Pixel @ One-North and is now known as TUM Asia.



2008 - 2009



Fourth Industrial Revolution

TUM Asia's first foray into Industrie 4.0 led to the inaugural Industrie 4.0 Symposium, jointly organised with Singapore's research institutes.

Launch Of Executive Education

On top of two Bachelor and five Master programmes, TUM Asia now offers a new suite of Executive Education courses targeted at upskilling employees to meet the local industry demands.

TUM Asia Turns Ten

TUM Asia celebrated her 10th anniversary, which was hosted by Professor Wolfgang A. Herrmann.

This same year also saw an unprecedented increase in student enrolment, welcoming more than 200 students in a single cohort.



2010 - 2011



Launch of Bachelor Degree Programmes

TUM Asia partners with Singapore Institute of Technology (SIT) to launch two Bachelor degree programmes: Electrical Engineering and Information Technology and Chemical Engineering.

Set Up of TUMCREATE

TUM Asia spearheaded the set up of TUMCREATE as a base of research in Singapore.



2014 - 2015



Relocated to SIT@SP Campus

TUM Asia relocated her facility to the new SIT@SP building in 2015. For the first time, all undergraduate and postgraduate courses were merged into one hub, with new programmes and cooperation projects slated to be added later this year.



2012 - 2013



2016 - 2018



Alumni Feature

In this issue, the Verbinden team was able to catch up with five of our alumni students, who told us more about their educational journey in TUM Asia and what they have been up to since graduating from school.

Alumni Feature



Elvin Tan

Master of Science in Aerospace Engineering
Class of 2011
Senior Engineer
ST Electronics (Satellite Systems) Pte Ltd, Singapore

Elvin graduated from the pioneer cohort of the Master of Science in Aerospace Engineering, and is currently pursuing his passion in Space Technology. The Verbinden team speaks with him to find out more about about his role in the industry.

Hi Elvin, tell us about yourself!

Hello! I graduated from the pioneer batch of the Master of Science in Aerospace Engineering program. Since my graduation in 2011, I have been working in ST Electronics (Satellite Systems), in the area of orbit determination and control. In my day-to-day role, I am involved in orbital analysis, hardware testing and integration, as well as supporting satellite operations.

What are one or two of your fondest memories as a TUM Asia student?

Fostering friendships with my classmates was one of the fondest memories as a TUM Asia student. Studying at TUM Asia can be intense at times due to the block-teaching format. Fortunately, I had a group of good buddies who were very supportive. With Ya Kun coffee in one hand, mugging through

tutorials with the other, I am glad that we managed to pull through our studies well together. Besides that, I also enjoyed those days when I had my internship at TUM's Institute of Astronautics (LRT). I was given the opportunity to participate in TUM's First-MOVE CubeSat project, as well as to experience living in an European community.

Why did you choose to study Aerospace Engineering?

I have always been interested in astronomy and space science. When I learnt that TUM Asia was offering a Master's program in Aerospace Engineering, it caught my attention. Pursuing a joint program has allowed me to benefit from learning from experienced professors in both NTU and TUM. It was an added advantage that the classes were held in Singapore, as I did not need to be far from home.



“**Constantly scanning the technological landscape and embracing new technologies to improve businesses and processes are the keys to staying relevant in the digital economy.**”

Share with us some interesting aspects of your jobscope.

One of the things that I enjoy about my work is getting to experience the full satellite development phases. For example, during the mission analysis phase, I am involved in orbital design and analysis, where I could put what I had learnt about orbital mechanics into practice. During the design and development phase, I would work on subsystem hardware testing and qualification, software development for orbit control, as well as participate in integration testing. Working on satellite projects has provided me with invaluable experiences, allowing me to strengthen my multi-disciplinary approach in problem-solving.

What are your thoughts about the space industry in Singapore?

As a space enthusiast, there has never been a more exciting time to be involved in SpaceTech than now. This is especially true when the SpaceTech industry is still in its infancy stage in Singapore, where there are still so many possibilities in the ecosystem. Currently in Singapore, besides satellite engineering and remote sensing, there is a company working on collecting weather data through CubeSat constellation. Besides that, there

are companies looking into debris removal solution for space sustainability, as well as those who are involved in building a low-cost rocket launcher. It is exciting to be involved in the SpaceTech ecosystem to witness its growth and evolution!

As an engineer, what do you think is a quality an engineer should always have?

Personally, I believe that it is important for engineers to have an innate sense of curiosity and to never stop learning. Constantly scanning the technological landscape and embracing new technologies to improve businesses and processes are the keys to staying relevant in the digital economy.

As TUM Asia turns 15 this year, share your thoughts with us!

Happy 15th Birthday, TUM Asia! I'm glad that nine years ago, I made the right choice to pursue my Master's degree in Aerospace Engineering and I'm grateful for the many friendships fostered along the way. I would like to take this opportunity to wish all fellow alumni the very best in their endeavours!

Notes from the Alumni

Congratulations TUM Asia! It is a great honor to be an alumnus of TUM, the top technical university in Germany. The quality of the program coupled with the experience of the professors is what sets the university apart from the rest. It was an enjoyable experience studying the Master's program in Aerospace Engineering and I am glad to be a part of the TUM family!

Saravanan BJ

Master of Science in Aerospace Engineering (Class of 2012)
Project Engineer
Siemens Ptd Ltd, Singapore

I would like to congratulate TUM Asia for their 15th year anniversary. I was enrolled in 2013 for the Master of Science program in Microelectronics and it was a great course with excellent professors from NTU and TUM. I got the opportunity to learn new things and form connections with people from the academia and semiconductor industry. I wish TUM Asia all the best for their future collaborations!

Mihir Gupta

Master of Science in Green Electronics (Class of 2015)
PhD Student
Imec and KU Leuven, Belgium

Coming from the pioneer cohort of Bachelor of Science in Electrical Engineering & Information Technology, I am proud to say that the risk was totally worth it. The best experience during the course was definitely the Overseas Immersion Program in Munich. Those crazy night outs at local pubs and clubs, and the exciting trips around Europe were truly unforgettable. Oh, and the C++ coding I did for three months as part of my thesis. Happy Birthday TUM! Many more successful ones to come!

Suyash Shukla

Bachelor of Science in Electrical Engineering & Information Technology
(Class of 2013)
Project Engineer
Hewlett-Packard, Singapore

Alumni Feature



Voon Lih Ting

Master of Science in Industrial Chemistry
Class of 2007
Oil Market Pricing
Shell, Singapore

Lih Ting started her career in Shell Singapore after her graduating from the Master of Science in Industrial Chemistry program in 2007. The Verbinden team speaks with her to find out more about her career journey thus far.

Hi Lih Ting! Can you tell us about yourself and what you are currently doing?

Hi! I studied a Bachelor's degree in Environmental Engineering at NUS prior to getting my Master of Science degree in Industrial Chemistry at TUM Asia. After graduating, I was accepted into Shell's graduate technical program and that marked the beginning of my career with Shell. I have since been with Shell for eleven years and have taken various roles, such as being a Technologist with Singapore Bukom refinery, Vietnam Country Technical Advisor and Asia Bitumen Pricing and Marketing Manager. Currently, I am doing pricing for our products in Asia and I am also accountable for all the main products from some of Shell's largest refineries globally.

What made you decide to further your studies after your Bachelor's degree?

After completing my Bachelor's degree, I found that the job market was restrictive and there was not much room for career development in this field. I wanted to work in a job that I could be

passionate about, but I could not find one in the opportunities available then. Thus, I started looking out for opportunities to further my studies which will broaden the job opportunities available to me. I was fortunate to find the course that I really liked in TUM Asia. TUM is well-known in the technical areas and the course lecturers are extremely well-respected in their fields of expertise. The course also gave me a chance to expose myself to an entirely new culture, new language and new experiences. Thus, I jumped at the opportunity and was glad to obtain a scholarship from Degussa for my Master's degree at TUM Asia.

Looking back, how would you describe your education journey at TUM Asia?

My education journey in TUM Asia was nothing short of fulfilling. The course is holistic, aiming to develop students to their fullest potential and to be ready for the work force in the areas of individual's interests. From industrial-relevant course work to internships, I enjoyed every step of the journey as the program was able to prepare me for my future career ahead.

Photo: Lih Ting



Lih Ting (second from the left), together with Dr Markus Wächter and the 4th cohort of Industrial Chemistry graduates

Do you find that your Masters education has prepared you for your current job responsibilities and your career path?

There were the intangible aspects that I gained, such as the mind-set of entrepreneurship and the sense of business ownership. I really enjoyed the business strategy & management courses. They helped me when I started my career with Shell, my attitude and business-savviness were quickly recognised which helped me stand out from many applicants during the challenging interviews.

Did you choose this career path specifically?

To be honest, it was not something that I had it all planned out when I graduated. It was more of a discovery process about myself, to learn what I enjoyed doing and what I feel I could really excel in. It also helped a lot that I was offered overseas assignments over the years which allow me to broaden my knowledge both in a work and personal capacity.

“From industrial-relevant course work to internships, I enjoyed every step of the journey as the program was able to prepare me for my future career ahead.”

Tell us what keeps you motivated at work, after being in the workforce for eleven years now?

Never stop learning! Since joining the work force, I find myself learning every day, be it new knowledge, new market movements or even a new culture. Everything is changing at such fast pace that the only thing that is a constant is change. It is of vital importance we keep ourselves relevant to the society, the world doesn't wait.

As TUM Asia turns 15 this year, share your thoughts with us!

I used this quote in my graduation speech and the same quote still applies to all fellow TUM Asia Alumni: “Do not follow where the path may lead. Go, instead, where there is no path and leave a trail.” (Ralph W Emerson) Regardless of your age, I would encourage students and alumni to constantly explore new opportunities and always keep a curious mind while enjoying your life and your work.

Notes from the Alumni

Congratulations TUM on 150 years of teaching and sharing the knowledge and experience of German Engineering worldwide. May the institute continue to prosper in the years to come. Prost!

Benjamin Kang

Bachelor of Science in Chemical Engineering (Class of 2013)
Commissioning Engineer
No Deviation Pte Ltd, Singapore

Several of the TUM modules which I studied in the Aerospace Engineering Master's program are tied directly into the work I've been doing on the job. For example, the classes on Light-weight Aircraft structures and Composite Materials classes have contributed greatly to my current project, as I was able to apply unique equations and ideas that greatly enhanced the test results.

Ashish Prasannan Kalayil

Master of Science in Aerospace Engineering (Class of 2016)
Technical Engineer
Gutmann Middle East, United Arab

Happy birthday TUM Asia and TUM! I am so proud to be able to study in TUM. I would like to thank all my professors and lecturers who taught me important lessons both in my academics and in my personal life. I have become a better person through my studies here in TUM Asia.

Jin Min

Master of Science in Transport & Logistics (Class of 2014)
Manufacturing Engineer
Schlumberger, Singapore

TUM Asia is a great initiative that shows what happens when you bring together the world's leading universities to collaborate. Wishing the TUM Asia team all the best for the next 15 years and continue to have fun in the journey ahead!

Rohit Ghosh

Master of Science in Industrial Chemistry (Class of 2006)
Marketing Head
BASF, Singapore

Alumni Feature



Sayaka Tatekura

Bachelor of Science in Chemical Engineering
Class of 2016
Process Expert
Novartis Pharmaceutical Manufacturing, Singapore

Upon graduating from the Bachelor of Science program in Chemical Engineering, Sayaka received a scholarship from Novartis, Singapore, and kicked off her career there. She shares with the Verbinden team some of the memories she had as a TUM Asia student.

Hi Sayaka, can you tell us more about yourself?

Hello! I was in the Bachelor of Science program in Chemical Engineering at TUM Asia. I recently graduated in 2016, and I am currently working at Novartis as a Process Expert.

How did you begin your journey with TUM Asia?

My lecturer from Singapore Polytechnic encouraged me to apply for this course when I discussed my interests with her. Upon reading the outline for the degree, it felt like something I could do well in. I was uncertain at first because my background was in biotechnology. However, I am glad I took that risk and have no regrets.

Share with us one or two of your fondest memories as a TUM Asia student!

My experience at TUM Asia was very fruitful. My favourite experience was going to Munich for my Bachelor's Thesis and living away from home for five months. Commuting to campus from my home away from home was a unique experience and I remember how I used to practice my German by repeating what the announcer on the trains were saying. I also enjoyed a hiking trip we took with our professor where the view was so rewarding when we finally reached the top! During this period, I was even brave enough to take my younger sister halfway across the world on a trip to London and Dublin, just the two of us!



How was the transition to the career track?

During my studies in TUM Asia, I was rewarded a scholarship by Novartis which gave me the privilege of securing a job before graduation. It has been two years since I officially started my job at Novartis, and I am still learning new things every day. It has been very interesting and rewarding getting the chance to interact with people from all over the world.

Can you share with us more about your day-to-day role and responsibilities at work?

My general job scope involves handling deviation investigations, complaint investigations, workflow improvement, and the occasional writing of trending reports and risk assessments.



As TUM Asia turns 15 this year, share your thoughts with us!

Choosing to join the TUM Asia family was one of the best decisions I have made. Having the opportunity to complete my Bachelor Thesis in Munich exposed me to a whole new culture that helped shape me into the individual I am today. Thank you, TUM Asia, and congratulations to TUM on 150 years of excellence in education!



Alumni Feature



Sunny Wang

Bachelor of Science in Electrical Engineering
and Information Technology

Class of 2016

Master of Science in Communication Engineering
Technical University of Munich, Germany

Upon graduating from the Bachelor of Science programme in Electrical Engineering and Information Technology, Sunny made a bold decision to pursue her Master's degree in Germany. The Verbinden team speaks with her to learn more about her experience so far.

Hi Sunny, can you tell us more about yourself?

You can call me by my nickname, Sunny, or Jia Jun. I am from China and came to Singapore for my Diploma studies. I majored in Biomedical Engineering at Ngee Ann Polytechnic before moving on to study Bachelor of Science in Electrical Engineering and Information Technology at TUM Asia. At the moment, I'm pursuing my Master's degree in Technical University of Munich, Germany, majoring in Communication Engineering.

How did you choose to major in Engineering?

My interest in Engineering started way back during my Polytechnic days. Though I had majored in Biomedical Engineering, I was open to different

options when deciding on my next step for further studies. I read about the EEIT program on TUM Asia's website and found the modules and syllabus rather appealing. Eventually, I decided to pick up the challenge and go for it.

Was there one thing that you enjoyed about studying at TUM Asia?

What I loved was the unity we had as a class. We often study together and try our best to support one another, be it for academics or our own personal lives. During the examination period, we would freely share our knowledge with each other. I find that this cohesive environment was what made the journey so much easier and more fun. These are the moments I cherish the most in TUM Asia.



“What I love about TUM Asia was the unity we had as a class. We often study together and try our best to support one another, be it for academics or our own personal lives.”

How did you decide to pursue your Master's degree in Germany?

Coming to Munich for my Master studies was a big decision for me especially after living in Singapore for more than 6 years. At first, the thought of doing so had never crossed my mind. However, spending a semester in Munich for my Bachelor Thesis had given me fresh perspectives on living abroad. I wanted to gain more experiences in Europe and the idea of studying in TUM seems fitting to do so. I am glad I made this decision because I am truly enjoying my time here so far.

Tell us more about your experience as a Master student of TUM.

Here, I get to have the freedom to manage my own time and studies. In my Masters, there are a variety of interdisciplinary modules to choose from and we select our modules for each semester. Besides that, living in Munich is also relaxing and easy-going. The lifestyle here is suitable for people who enjoy a laidback and slow-paced lifestyle.



What are your plans after your studies in Munich?

My plan after my studies in Munich is most probably to return to Singapore to work. As much as I love the life here in Munich or Europe, I still very much look forward to be back in Singapore again!

As TUM Asia turns 15 this year, share your thoughts with us!

I want to scream my love to TUM Asia: I LOVE YOU! You have enriched my experiences and made me believe that I have more strength than I have previously known. I'm forever honoured to be an alumnus of TUM Asia.

Photos: Sunny Wang

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Photo: Technical University of Munich

150 Years of TUM
15 Years of TUM Asia