

# digest

May - August 2018 Issue



TUM Asia Tums 15  
p.4-5



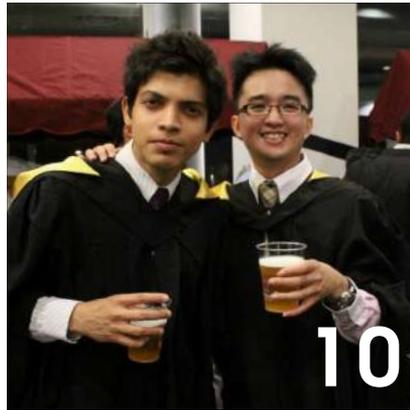
Chemistry Is  
Everywhere  
p. 6



Research  
Symposiums  
p.14-15

# CONTENTS

- 03 Director's Message**
- 04 TUM Asia Turns 15**
- 06 Alumni Feature:**  
Chemistry Is Everywhere
- 08 A Night In Wakanda**
- 09 Greetings From Munich**
- 10 Alumni Feature:**  
More Than An Engineer
- 12 Professor Feature:**  
Energy Harvesting For  
Smart Sensors
- 14 Research Symposiums**
- 16 Upskill Yourself**
- 18 The Chatter**



## MORE THAN AN ENGINEER

Suyash Shukla (left) shares about his career path after his graduation from the Bachelor of Science in Electrical Engineering and Information Technology



## ENERGY HARVESTING FOR SMART SENSORS

Professor Norbert Schwesinger shares his thoughts on the Electrical Engineering industry



## UPSKILL YOURSELF

Executive courses on offer for professionals, mid-career changers and more

## ON THE COVER

TUM Asia Turns 15 - TUM Asia  
Chemistry Is Everywhere - BASF (Photo 2)  
Research Symposiums - Israel Tan Photography (Photo 3)

This newsletter is published by:

**Office of Corporate Communications**  
**Technische Universität München Asia**  
SIT@SP Building  
510 Dover Road #05-01  
Singapore 139660

**Tel:** +65 6777 7407  
**Email:** [info@tum-asia.edu.sg](mailto:info@tum-asia.edu.sg)  
**Website:** [www.tum-asia.edu.sg](http://www.tum-asia.edu.sg)  
**Facebook:** [www.facebook.com/tum-asia](http://www.facebook.com/tum-asia)

CPE Registration No. 200105229R (13/06/2017 - 12/06/2023)  
German Institute of Science & Technology – TUM Asia Pte Ltd

# Director's Message



**W**ith 15 years of operations in Singapore, TUM Asia strives to be on the front edge of change by constantly scanning the industry landscapes in Asia and at the same time, refining its approach on education to maintain industry-relevance. As technologies continue to mature, automation increasingly disrupts the way people live. Coming years will soon see a rising demand for engineers with multi-cultural exposure who are able to respond to future challenges with flexibility and innovation.

In this issue of DIGEST, we are pleased to catch up with Suyash Shukla, graduate from the Bachelor of Science in Electrical Engineering and Information Technology, and Bir Mehta, graduate from the Master of Science in Industrial Chemistry, who individually shared with us how their education at TUM Asia has prepared them for their present career paths. Read about their interviews on page 6 and 10 respectively. We also spoke with Professor Norbert Schwesinger, who has taught in the Electrical Engineering and Information Technology programme since its first intake at TUM Asia. He shared with us insights on energy harvesting and smart sensing, in relation to the electrical engineering industry. To read his interview, turn to page 12.

Outside of the academic programmes, TUM Asia also regularly collaborate with local research institutes in the form of mutual events and research symposiums to exchange ideas and knowledge. Most recently, we played host to two research symposiums, focusing on the topics of Biomedical Additive Manufacturing and Digital Healthcare. To find out more about our academic exchange of expertise, turn to page 14 and 15.

In more exciting news for the next quarter of the year, TUM Asia is now offering a new suite of Executive Education courses targeted at upskilling employees and students to address the growing need for continuous education. You can find an overview of these upcoming courses on page 17.

We hope that you have an insightful read. We wish you success in the rest of the year.

**Yours Sincerely,**

**Dr. Markus Wächter**  
Managing Director, TUM Asia

# TUM Asia Turns 15

TUM Asia started its operations in 2002 as the first German academic venture outside of Germany. From a first cohort of twenty postgraduate students, TUM Asia has graduated more than a thousand students till date. As TUM Asia celebrates its 15th anniversary, these are some exciting milestones since the inception of TUM Asia and a few words from our professors and alumni from the pioneer cohort of various programmes.



**2002:** The official inauguration German Institute of Science and Technology (now known as TUM Asia)



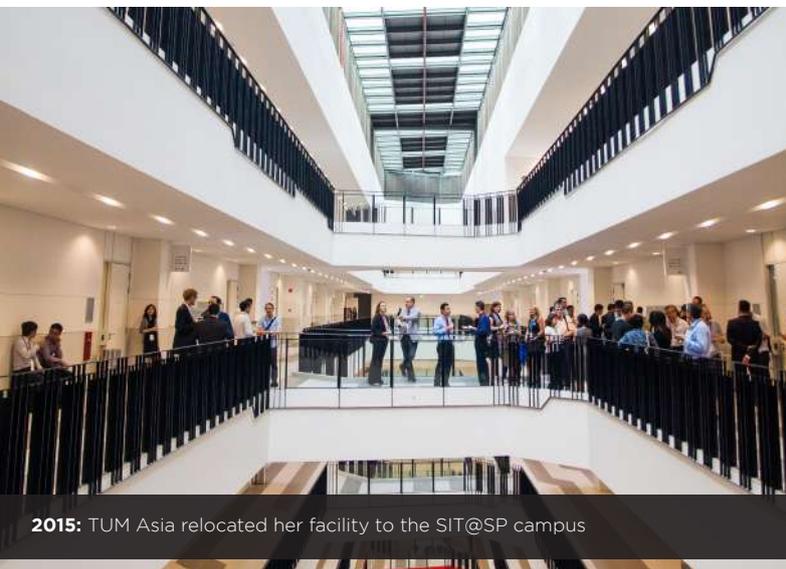
**2010:** The first Bachelor student orientation programme



**2012:** Prof. Wolfgang A. Herrmann, President of TUM, hosting the 10th Anniversary dinner of TUM Asia



**2013:** TUMCREATE, a joint research collaboration between TUM and Nanyang Technological University, launched its first electric taxi prototype, EVA



**2015:** TUM Asia relocated her facility to the SIT@SP campus



**2018:** The commencement of Specialist Diploma in Advanced Digital Manufacturing course

### Professor Fritz Kühn

Head of Molecular Catalysis, Faculty Dean of International Affairs,  
Faculty Graduate Dean, Technical University of Munich



“It has been a great pleasure to see TUM Asia grow from the very beginning. It has been a joy to meet and teach many highly motivated and interested students from many places around the world, while TUM Asia developed a steady and reliable course through changes and developments. I am happy that I could contribute my part to this enterprise in the last 15 years and, hopefully, for more years to come.”

### Tan Wei Ling

Alumni, Master of Science in Industrial Chemistry (Pioneer Cohort)

“Being the first batch of NUS-TUM Industrial Chemistry program then, it was exciting and prestigious to have been chosen among the many that applied and all of us received generous sponsorship from German companies that went on to provide us with a wonderful internship experience in Germany. The program was holistic as it covers a wide range of topics from chemistry, business management and entrepreneurial skills and we were kept on our toes all the time with the assessments and presentations. We even had the privilege to attend lectures by Nobel Laureates. The best memories I had were the weekend getaways with my classmates in Germany, we would catch a bahn (train) to explore the different cities and capture these memories on camera. Till this day, I am still in touch with many of my classmates via Facebook as they are located all over the world.”



### Tan Boon Kai

Alumni, Bachelor of Science in Electrical Engineering and Information  
Technology (Pioneer Cohort)



“As the first students in the Electrical Engineering & I.T. programme in Singapore, I will always remember the experiences of the classroom and the opportunity to travel to Germany with my classmates. In the classroom, I learnt to pick up knowledge in relevance to my career and outside the classroom, the memories forged with my classmates during our three months in Europe formed a lifetime friendship for all of us. We are still in contact up to today and I believe that a strong bonding factor for us was the time we spent with each other in university.”

### Gunjot Kaur

Alumni, Master of Science in Integrated Circuit Design (Pioneer Cohort)

“If I had only two words to describe my experience studying at TUM Asia, they would be ‘Unforgettable’ and ‘Enriching’. To have had the best of both worlds - competent and engaged faculty from both NTU and TUM - and a very creatively-structured course was what made life on the NTU campus very exhilarating. This unique combination of bringing Germany and Singapore together is what makes TUM Asia courses truly invaluable! A big congratulations to TUM Asia on its 15 years! I wish you many more successful years to come.”



# Chemistry Is Everywhere



Bir Mehta gives an industry talk to Bachelor and Master's students as a representative from BASF

**In February 2018, our students had the chance to attend a career talk conducted by Bir Mehta, a TUM Asia alumnus who is now working at BASF Asia Pacific. The DIGEST team speaks with Bir to find out more about his views on the chemical industry.**

**Hi, can you give our readers a short introduction about yourself?**

Hi everyone, my name is Bir and I graduated from the third batch of Industrial Chemistry Master program in TUM Asia. Since graduation, I have been with BASF for the last twelve years and my job scope involves various roles from research, technical marketing, business management & corporate strategy. During this time, I have had the privilege to live abroad in various countries such as Singapore, Hong Kong, Germany, and presently China. I head the Hygiene Products Business of BASF in Asia Pacific, which is based in Shanghai, China.

**What convinced you to pursue your Master's degree?**

After completing my Bachelor's degree in Industrial Chemistry, moving on to pursue my Masters before entering the industry was ideal for me to prepare myself for the working world. One of the reasons that convinced me to choose TUM Asia was because the degree would be conferred by two world-renowned universities, NUS and TUM. However more

importantly, I would have the chance to experience living in two different countries while pursuing my studies. Germany is well-known for its universities and chemical companies and thus having a German degree would greatly enhance the basket of opportunities after graduation for either PhD studies or a career in the industry.

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

We were able to learn soft skill modules such as Chemical Marketing, Cultural Aspects, Business & Project Management, which complimented the academic modules that we learnt. These skills helped me understand the key requirements of the industry and it has immensely helped me in my career path. TUM Asia also constantly invites its industry partners for talks, which helped to build a relevant window into the industry.

Putting academics aside, I am glad that I was able to interact and work with students from various countries. This aspect of enriching one's cultural experience is a very important part of business life today. I fondly



A photo of Bir at his company, BASF

remember back when I was in Germany to conduct my Master's thesis and internship, I had the chance to work in a completely new environment and make new friends. It was really fun and memorable!

**How did you decide on your current career path?**

Chemistry is everywhere. With an expected global population of 10 billion people by 2050, the need for food, housing, energy, consumer goods, transportation, among others, will rise exponentially. Chemistry will be a key enabler to meet current and future needs of the world and the chemical industry will play a vital role in solving various global challenges. In my daily role, I develop new products & solutions for the marketplace with the goal of making our everyday lives easier. Giving back to the society gives me great job satisfaction.

**With years of experience in the Chemical industry, how do you think one can stay relevant to the evolving demands of the industry?**

The chemical industry forms a basis to serve many other industries such as the automotive, construction, food & nutrition industries, among others. It is important for us to understand the developments in other value chains to identify areas where chemistry can add value. Besides that, we should seek to understand developments which will impact our industry, such as the impact of digitization and how the manufacturing industry could leverage its benefits. It is also important to foster close collaborations between academia and industry. With new tools available, industry could act as a catalyst to commercialize innovations from academia again making the world a better place.

Photos: Bir, BASF

**TUM Asia turns 15 this year! Do you have anything you would like to say to your fellow alumni?**

First of all, heartiest greetings to all my fellow alumni! Congratulations to TUM & its alumni towards reaching this goal. As one of the first alumni from TUM Asia, I can only say let's all keep in touch, expand our networks, and re-live the enriching experience from our days at TUM Asia. Looking forward to meeting you all sometime soon.

“ **Chemistry will be a key enabler to meet current and future needs of the world and the chemical industry will play a vital role in solving various global challenges** ”

Bir Mehta



Bir (leftmost) with other students who conducted their internships at Bayer, Germany



Bir (middle) and his friends in Europe

# A Night In Wakanda



At TUM Asia, regular events are organized outside the classrooms to encourage students to interact with one another across different programmes and cohorts. To kick start the year, the TUM Asia Student Management Committee (SMC) organized the first event of year - Black Panther Movie Night, on 26 February 2018 at the Cathay. It was a successful turn-out where many of our Bachelor and Master students were able to take a break from their studies and wind down for a 'night in Wakanda'.

Follow the **SIT-TUM SMC Facebook page** on [www.facebook.com/SIT.TUM.SMC](http://www.facebook.com/SIT.TUM.SMC) to receive updates on future events!

## SIT OPEN HOUSE 2018

# Greetings From Munich!



In the start of 2018, TUM Asia was involved in the Singapore Institute of Technology (SIT) Open House 2018, held on 13 and 14 March, at the Suntec City Convention Center. To jazz things up this year, the TUM Asia booth was specially decorated in a Bavarian style to showcase fun elements of the German culture. Over the two-day event, potential students were able to hear first-hand from the students, staff and faculty members of TUM Asia about pursuing a German degree in Singapore. Presentation talks were held for attendees who wanted to find out more about the university. Our students, Chen Jun Guang and Abdul Yasser, were also invited to give a short presentation on the highlights of their educational journey. The response for the open house was overwhelming and it was great to see the TUM family coming together to support the event.

# More Than An Engineer



Suyash Shukla (middle), receiving an award at his company for implementing an innovative product strategy

**Suyash Shukla graduated from the pioneer cohort of Electrical Engineering and Information Technology and is now currently working at Hewlett-Packard (HP). He speaks with the DIGEST team to share some interesting aspects of his career life as an engineer.**

**Hi, can you give our readers a short introduction about yourself?**

Hi everyone. I came from Mumbai, India, but Singapore has been my home since 2007. I graduated in 2013 from the pioneer batch of the Bachelor of Science program in Electrical Engineering at TUM Asia, which started back in 2010. Recently, I completed a Masters in Business Administration (MBA) from Singapore Management University (SMU) and I am also happy to share that I recently became a Singapore citizen. Presently, I am patiently waiting to see where life takes me next.

**Is there a reason why you chose to pursue a degree in engineering?**

After working for a little under a year after my Diploma in Electronics, I wanted to go back to university to enhance my engineering skills. I have always had an interest in engineering and the underlying technologies. I have also always enjoyed troubleshooting and learning with a hands-on approach. This eventually led me to enroll in the SIT-TUM degree.

**Can you share one or two of your fondest memories as a TUM Asia student, and why it was special?**

The fondest memory at TUM Asia was my Overseas Immersion Programme (OIP) where I got to travel to Munich, and the rest of Europe. I can never get over my first travel experience in Europe, especially because of the SNOW! Over a period of four months, I traveled to about ten cities across five countries. Traveling was a bi-weekly affair, while the other weekends were spent in Munich itself, together with my classmates, either bar-hopping or clubbing.

**How has working life been for you since graduation?**

Upon graduation, I joined Thales Avionics as a Technical support engineer. Following that, I joined Hewlett-Packard (HP) as a quality engineer. Besides managing the product qualifications of HP's Inkjet printers, I have also been actively involved in HP's Employee Engagement Council, where I get to organize company events such as Dinner and Dance. I am also glad to be able to implement new ideas while working at HP and was awarded for some of these ideas.



Suyash (front right) with his TUM Asia classmates at Austria

**Cool! Can you share with us an example of these ideas?**

One of the awards I received was for HP's Sandbox challenge, where I implemented a Go-to-market strategy for HP's newly launched Sprocket (a pocket printer). Another one was for coming up with an innovative and efficient test method.

**Is there an interesting assignment that you have been working on in your job?**

At work, we are currently in the process of reinventing and transforming. Due to the ever-changing business dynamics, we need to constantly be ready for change to stay competitive. Currently, we are trying to improve the way we execute product qualifications, certifications and testing and work together with our vendors and manufacturing partners. (Oh, I'm stressed already)

**Was there anything from your degree studies that benefited your career choice?**

Definitely! At work, there are times I am required to understand the motherboard designs and schematics as well as to conduct DFMEAs and other failure analysis. These are engineering skills that I have picked up during my studies at TUM Asia.

**If you could offer a piece of advice to your juniors who are soon entering the workforce, what would it be?**

My advice to the graduating juniors would be firstly, to always remember to appreciate yourself. Do not blindly join the "race for success", which is never-ending! At times, it is important to take a break and give yourself a pat at the back. Secondly, to stay humble. Always consult your seniors or managers for their advices. As Winston Churchill once said, "Courage is what it takes to stand up and speak; courage is also what it takes to sit down and listen"

**TUM Asia turns 15 this year! Do you have anything you would like to say your fellow alumni?**

I would like to wish TUM Asia a very Happy Birthday! Keep up the good name and reputation! For Alumni from the Undergraduate program, I hope that each one of you keeps in touch with your classmates through periodical gatherings or the various alumni events that are organized by SIT or TUM Asia. We should recognize all the hard work put in by the staff in organizing such events, my favorite being the Alumni Movie Night!

“Always remember to appreciate yourself. Do not blindly join the “race for success”, which is never ending! At times, it is important to take a break and give yourself a pat at the back.”

Suyash Shukla



Suyash (second from right) and his colleagues in Thailand for a business case competition



Suyash (third from right) with his colleagues at a HP event

# Energy Harvesting For Smart Sensors



Professor Schwesinger presents a student with his Bachelor of Science degree scroll during the 2016 Graduation Ceremony

**The DIGEST team had the opportunity to interview Professor Norbert Schwesinger, who has been teaching in TUM Asia since the inception of the Electrical Engineering and Information Technology Bachelor's programme. He shares more on his research interests on Microstructured Mechatronic Systems and Energy Harvesting and his views on the Electrical Engineering industry in Singapore.**

**Hi Prof. Schwesinger, can you tell us more about your experience in the Electrical Engineering industry before becoming a professor at TUM?**

Before I became a professor, I studied Electrical Engineering and completed my doctoral studies at the Technical University of Ilmenau (TU Ilmenau). I started my first job as a development engineer at Relay Technique Grossbreitenbach, and that was when I first developed an interest in MEM

(Micro-Electro-Mechanical) systems. To gain more experience in this area, I moved on to my next company at Robotron Sömmerda, where I worked with the use of microtechnologies to develop ink jet print heads. Unfortunately, when the unification of Germany took place, Robotron was one of the many companies that was affected by the economy and had to shut down. I decided to move back to TU Ilmenau and became the director of the Microsystems Technology Laboratories.

“  
**The task of engineers is very demanding but at the same time, very exciting. Engineering is like an adventure where one is constantly moving to new territories to achieve new desired goals.**  
”

Prof. Norbert Schwesinger

### **How did you come to be associated with TUM and eventually to teach in Singapore?**

After having stayed for 10 years at TU Ilmenau, I received an offer from TUM to join the department of Micro-structured Mechatronic Systems. It was a new beginning for me in a totally different environment. I started by building industrial relations with companies in Munich and focused my work on microfluidics. Later, I shifted my focus to piezoelectricity and its application in technical devices. I was eventually asked to consider teaching at TUM Asia in Singapore, where a Bachelor programme in Electrical Engineering and Information Technology was going to be established. I agreed without hesitation and took it up as a challenge.

### **Is there an aspect you have enjoyed about being a professor at TUM Asia?**

Yes, I enjoy being in foreign countries, especially getting to know new people, cultures and lifestyles. I have been to both Japan and Ireland for a period of time, but Singapore has been a completely new experience for me. In my opinion, Singapore is a great city and a gem in Asia. After a day of teaching, I would usually go for a swim or visit the hawker center for a delicious Asian meal. Besides that, I also enjoyed the professional and organized working environment at TUM Asia. The staff is always friendly and helpful.

### **Can you tell us more about your research specialty and the module you teach at TUM Asia?**

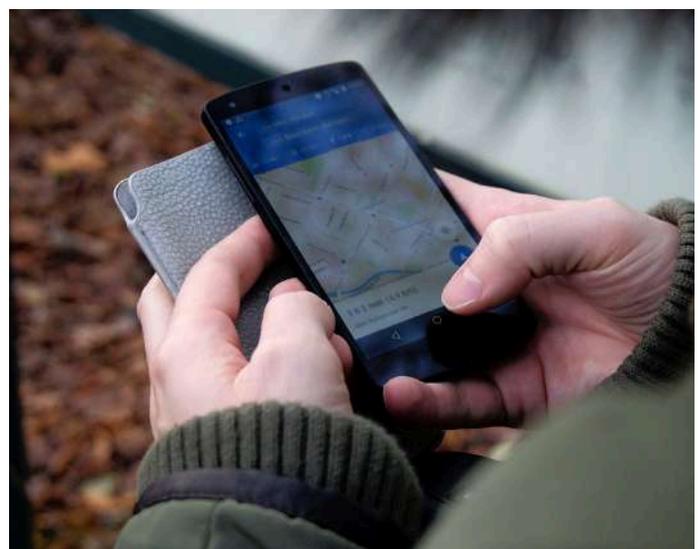
My research specialty is in Microstructured Mechatronic Systems. These are mechanical systems that consist of electronic components with extremely small dimensions. These systems can be fabricated with the use of a type of technology known as Microelectronics. Microelectronics are typically sensors which are now found in a wide variety of applications such as mobile devices, cars, washing machines or printers. These sensors allow the devices to detect different physical parameters such as temperature, acceleration and inclination. Especially in view of the Internet of Things (IoT), there is a demand for increasingly sophisticated and smart products, such as ink jet printers or light projectors. Building these products require a large number of sensors and actuators, which are counter parts of sensors. The module which I teach at TUM Asia is focused on these microstructured sensors and actuators.

### **Share with us a recent research topic you have been working on. How do you think it might contribute to the Electrical Engineering industry in Singapore?**

My present research topic is Energy Harvesting. In this field, we are looking for possibilities to convert wasted energy into electrical energy. With the IoT revolution, there is a growing need for the evolution of new sensors, systems and applications. With this also comes the issue of power supply, because it is almost impossible to connect all sensors by wiring. Batteries are often not a sustainable option due to charging limitations. Energy harvesting could thus be a viable solution to overcome this problem. Currently, energy harvesting still has its limitations such as low conversion efficiency and high production costs, and intensive research is necessary to tackle these issues. In the context of a well-developed country like Singapore, energy harvesting could contribute directly to the success of the IoT and create a new potential for the sensor market, by developing new solutions for power supply and designing distributed sensor networks and nodes.

### **As an experienced professional and professor in the field of Electrical Engineering, what advice would you give to young and aspiring engineers who are looking to venture into this field?**

Electrical engineering is a very exciting field that offers dynamic challenges and views. Apart from the general basic laws, electrical engineering is subjected to continuous renewal and advances. While business administrators manage the current state, (electrical) engineers focus on making progresses by constantly creating new products. The task of engineers is very demanding but at the same time, very exciting. Engineering is like an adventure where one is constantly moving to new territories to achieve new desired goals.



**DID YOU KNOW:** Most smartphones today are packed with nearly 14 sensors that produce raw data on motion, location and the environment around us. This is made possible by the use of micro-electromechanical systems (MEMS).

## RESEARCH SYMPOSIUM

# New Frontiers in Biomedical Additive Manufacturing Symposium



The Biomedical Additive Manufacturing team, led by Dr. med. Markus Eblenkamp, from Technical University of Munich (TUM) organised a mini-symposium in Singapore on 6 February with the objective of exploring Research and Development as well as industry collaborations. Held at CREATE Tower, the symposium was hosted by TUM Asia, in partnership with NUS Centre for Additive Manufacturing and National Additive Manufacturing Innovation Cluster (NAMIC), and was attended by audiences from institutions and industry. Additive manufacturing is a technology that brings about new business opportunities and dramatically reshape how we live, work and play. In particular, the biomedical industry has been revolutionized by additive manufacturing as 3D printed medical devices and prosthetics are commonly used in patient care. This symposium brought together potential partners and collaborators from Singapore and Germany, showcased the research and development work carried out in both countries and explored the impact of additive manufacturing on the biomedical industry.

Photos: TUM Asia

## RESEARCH SYMPOSIUM

# Emerging Trends and Challenges in Digital Healthcare Research Symposium



The Technical University of Munich Asia (TUM Asia) partnered the German Academic Exchange Service (DAAD) to host a Research Symposium in Singapore on the theme of “Emerging Trends & Challenges in Digital Healthcare” on 3 April 2018. This event is jointly supported by the Embassy of the Federal Republic of Germany. The growth of digital healthcare has seen both promising and threatening shifts in healthcare practices accompanied with growing importance and sophistication of digital technologies such as electronic patient records, smart wearable devices and healthcare applications. Through this symposium, attendees were able to receive insights on topics such as ‘Challenges of Digital Transformation in the Healthcare Industry’, ‘Discovering Disease Bio-markers Through Cell Microscopy’ and ‘Emerging Innovative Healthcare Solutions’. The push towards innovative healthcare is set to build on the strides that the nation has taken as part of its Smart Nation initiative. It is imperative that the tech industry and the healthcare profession needs to be more connected and involved than before and bridge the barriers that exists between the technology entrepreneurs, investors, developers, and practicing physicians.

# Executive Education Courses

With the announcement of the Smart Nation initiative in Singapore, the national effort aims to create a better future through technology enabled solutions. As a result, Industrie 4.0 (Industry 4.0), where the internet of things and automation are revolutionizing manufacturing, has been a major topic of discussion in Singapore. Moving forward, the industry is looking to upskill its workforce to further equip the next generation's workforce. In support of lifelong learning and skills mastery, TUM Asia now offers a range of executive education courses listed below.

## Modular Certificate Courses

Upon the successful completion of each modular courses, students will be awarded with a certificate which will count towards the attainment of the corresponding Graduate Diploma or Specialist Diploma should the individual subsequently decide to enrol into the relevant full-qualification courses.



## SkillsFuture Earn and Learn Programme (ELP)

A work-study programme designed to give Singapore Citizens or PRs who are fresh graduates from polytechnics and the Institute of Technical Education (ITE) a head-start in careers related to their discipline of study. This programme is designed in collaboration with industry to ensure relevance to employers.

## Specialist Diploma in Advanced Digital Manufacturing

The Specialist Diploma in Advanced Digital Manufacturing, launched by the joint partnership of TUM Asia and Festo Didactic SE, is the first Industrie 4.0 Specialist Diploma being offered in Singapore. Industrie 4.0 in Singapore. Modules are taught by German experts from TUM and qualified Festo Didactic trainers with the objective of equipping participants with relevant Industrie 4.0 knowledge and skills to make an impact in the industry.



## Graduate Diploma in Railway Engineering

This Graduate Diploma aims to provide adult learners with the knowledge and skills required to undertake more job responsibilities in the railway engineering sector of the land transportation industry. The curriculum complies with the Ministry of Education (MOE)'s CET Qualifications Framework, consisting of two 135-hour Post-Diploma Certificates (PDC) such as 'Railway Trackworks' and 'Railway Planning and Operation'.

**To register or to find out more, please contact:**

TUM Asia, Office of Executive Development  
Tel: 6777 7407 | Email: [exd@tum-asia.edu.sg](mailto:exd@tum-asia.edu.sg)



Photo: Israel Photography

## Upcoming Events

### **28 July 2018: SkillsFuture Singapore Earn & Learn Carnival**

The new SkillsFuture Earn and Learn Programme (ELP) is unique in that it will be open to fresh polytechnic graduates within 3-years of graduation from any discipline and offers a flexible programme duration of 9 to 12 months. TUM Asia now offers a structured training programme including on-the-job training and facilitated learning, leading to a Foundation Certificate in Digital Automation Systems and Specialist Diploma in Advanced Digital Manufacturing under the ELP.

### **23 July & 28 August 2018: RACE Academy Masterclasses**

- 1) Embedded Systems and Cyber Physical System (23 July 2018)**
- 2) Systems Modelling Language (SysML) & ROS SMACH (28 August 2018)**

TUM Asia has collaborated with RACE (Robotics Automation Centre of Excellence) to develop a series of workshops targeted at engineers, technicians and industry professionals who are keen to deepen their knowledge and understanding of key topics like robotics, automation and digital manufacturing. These workshops are conducted in Singapore by top professors from the Department of Electrical and Computer Engineering and Department of Mechanical Engineering at the Technical University of Munich (TUM).

### **29 - 31 August 2018: Industrie 4.0 Summer School**

Through this 3-day Summer School Programme, participants will be able to strengthen their fundamental knowledge and concepts in Industrie 4.0, gain an in-depth understanding of how to manage smart data, smart systems and its enabling technologies, explore aspects of disruptive innovation and learn how to adopt cybersecurity measures when handling projects and manage the risks involved in digital networks.

# The Chatter



## Career Recruitment Talks 2018

Formally known as Career Opportunity Day, TUM Asia held a series of Career Recruitment Talks (CRT) on 16 March, 23 March and 6 April 2018, targeted at Bachelor and Master students. Representatives from companies such as Siemens, Infineon Technologies and Intel were present to promote their companies and employment opportunities. One of these representatives was our alumnus, Tan Qi Sheng, who graduated from the Bachelor of Science in Electrical Engineering and Information Technology in 2015, and has since been working in Siemens as an engineer in the Mobility Division. Students who attended the talks were able to network and interact with the company representatives and find out about internship and full-time roles being offered by the industry.



## Career Essentials Workshop 2018

With rising competition in the graduate recruitment market, there is an increasing need for applicants to differentiate themselves when faced with global competition for highly sought-after jobs. To give our students a head start in preparing for their future career, TUM Asia hosted an exclusive Career Essentials Workshop on 15 March 2018, at the SIT@SP Building. The workshop was attended by Bachelor and Master students who received valuable career insights such as crafting a good resume and performing for an interview.



Photo: Technical University of Munich

**150 Years of TUM**  
**15 Years of TUM Asia**