

Master's Thesis Talk: Keep calm, it's just a thesis!



Table of Contents

Keep calm, it's just a thesis!.....A1

China Studies: Sichuan Trip.....A2

Tomb-Sweeping Day.....A3

Meet The Future At CE China.....A4

In our last edition, we offered you tips on how to approach a mentor to guide you on your final year research. In this segment, we highlight some advice given by our faculty to pass your defense with flying colours.

Many students feel that once they have chosen their mentor, nearly their entire ordeal is over as they expect to have the advisor fill in the gaps for them. Prof. Christopher Balding comments that this is a huge factor which helps the faculty decide whether or not they would approve a potential candidate. He says, "I look for students that will take the initiative. Too many students expect me to guide them through every step of their thesis. This is not my job. My job is to advise them as

they work on their thesis. I also look for students that will listen. Too many students simply decide to ignore the advice given by their thesis advisor." This a view shared by Prof. Terrill Frantz as well. Opines Prof. Frantz, "I do warn my advisees that the thesis is their project, not mine. I am not a project leader; I am an auxiliary advisor to them. I provide ideas, suggestions, insights, and guidance. I do not provide answers. I do not do their work." He says that during his pursuit of writing a Ph.D. thesis too, advisors never did anything more than what he provided even though they were highly esteemed researchers; "I figured out how to conduct world-class research to become self-sufficient; they situated me to become productive on my own in my professional future."

One of the most essential aspects of the thesis is the area of research or the topic itself. While a lot of those who aim to foray into a professional career after their master's look at the thesis as just a mandatory academic requirement, there are some who pursue a research with the aim of eventually accomplishing a Ph.D. So choosing a topic which will make substantial contribution to the area of research is as crucial as a topic that might pique your interest. This is also a vital aspect that some of the professors

look at while selecting potential advisees. They often check if their research interest matches their interest and expertise. That is why Prof. Jiao Shi comments, "I think the most important thing for a student to do is to look inward and ask "which aspect of the world do I wish to know more."

"The thesis is the end product of a long work process. During which, the student needs to commit an enormous amount of time and effort to learn about a certain topic. If a student does not have an intrinsic interest and curiosity for his or her topic of choice, the process will not be enlightening or fulfilling, and learning will not bring much joy or satisfaction. Thus, I think for a student, it is most important to 1) figure out his or her interest, 2) find an advisor who's a good match." This is resonated by Prof. Jooyoung Park too. She encourages students to see how much research has been conducted in their area of interest and what else can they add to it.

Finally, the manner in which students attempt to complete their thesis is of utmost importance. Prof. Park laments that some students just want to get it done, whereas a few of them take it more seriously. She says it is quite disappointing to see students who come back in February or March and start working on

their thesis. In this case, both students and advisors suffer a lot. She hopes students to manage their time and prioritize their thesis, a view that is shared by a lot of other faculty members. In order to write a thesis, students have to read a number of papers so that they can practice what they have learned in a number of classes while working on their thesis. To achieve this, Prof. Balding shares a judicious tip. According to him, when choosing a subject or focused question, there is no substitute to simply working with the data. Let the data speak to you. Too many students try to make an answer fit the data rather than letting the data tell them what the answer is.

So, don't fret too much over not being able to succeed in time or be apprehensive in approaching your mentor. As Prof. Frantz concludes, "Each PHBS student ultimately teaches me something interesting and useful about their topic. Each has a very interesting life story in their past, each presents personal strengths and weaknesses to my advising experience, and each student has awesome dreams for themselves. Personally, I am very happy when I become jealous of a young person!"

Reported by Gayathri Jagannathan

PKU Shenzhen Research Insight: A Word With Professor Yan Chaoyi From SAM



Peking University is known for research and innovation. In this context, Professor Yan Chaoyi from the School of Advanced Materials. The following is an interview with our distigushed Professor Yan.

Nanyan Observer: Can you tell us about yourself? Background, education and actual professional status?

Yan Chaoyi: I am currently a principle investigator in School of Advanced Materials, PKUSZ. I got my bachelor degree from Fudan University in 2007 and PhD degree from Nanyang Technological University, Singapore in 2011. I joined PKUSZ in 2015 to start my academic career. My research focused on the development of next-generation flexible, stretchable and wearable electronics.

NO: Why did this type of work/field interest you and how did you get started?

YCY: Academic career allows you to explore into the unknown and contribute to the world by developing innovative technologies and products. I feel that creating fascinating new products such as wearable electronics is a journal of excitement. We have strong interests and motivations to convert our ideas into real products.

NO: Why did you decide to work and do research at PKU? How does PKU differ from its University competitors?

YCY: PKU is one of the most well-known universities in China and it is a great honor to have the opportunity to join PKU. The graduate school in Shenzhen is an attractive working place especially in terms of commercialization of research intellectual properties. PKU can provide the platform for you to carry out cutting-edge research and Shenzhen is the place that cherishes and can nourish your innovations.

NO: What sorts of changes are occurring in your field?

YCY: In the field of wearable electronics, there are already plenty achievements but there are also plenty of targets that remain to be achieved. Wearable electronics such as Apple watch and Fitbit bracelets are now readily available although their applications are yet to be enhanced. Our research works are to develop next-generation wearable electronics that do not simply do what your mobile phone can do. We want to open up some new applications that no other devices can do right now. Our soft, flexible and stretchable electronic devices can transform into any shapes while maintaining.... (continued on page 4)

International Students Explore Sichuan with China Studies Course

On March 31st, twenty international students enrolled in Professor HUANG Haifeng's China Studies course embarked on a four day trip to Sichuan province to engage in a host of cultural experiences. The objective was to learn more about life in China outside of Shenzhen and so-called "First Tier" cities. Activities over the trip included teaching at a local middle school, joining a tea harvest ritual, climbing the famous Mount Qingcheng, and dining at a restaurant that doubles as a theater for Sichuan opera.

The journey began with a flight from Shenzhen to Yibin, Sichuan, where the students stayed for the night to prepare for the many smaller trips planned around the province over the ensuing days. Starting first thing in the morning of the next day, the class served as volunteers in a teaching assistant program at Jinping Middle School. Each international student brought their individual cultural backgrounds to classrooms full of fifty to sixty young Chinese students, each of whom were eager to learn more about the world outside of China. The international students split into six groups and taught a range of different subjects such as foreign languages and geography to the local students. Since many of these students do not have access to the internet in their homes, they looked at the diverse group of international students with amazement and were enthusiastic about learning as much as they could from their temporary teachers.

Anastasia Qiu, a first-year Quantitative Finance student at PHBS, remembers once seeing a BBC documentary about schools in remote areas of China and has dreamed of visiting such a school since. She felt only delight at seeing her dreamed turned into reality, noting that "the school kids were so sincerely happy to see us as we went into their classrooms and each of us introduced our own countries. I tried to speak Mandarin and they were so excited and treated us like celebrities, even asking for us to write something in their books like an autograph. They were so happy and it was a really rewarding experience."

Later that day, the group visited a local tea farm and were invited to partake in a ritual ceremony performed before every harvest. Later, the students were allowed to pick tea leaves of their own. The night concluded a dinner at a Sichuan resident's home, complete with a bonfire and plenty of dancing.

Professor Huang's China Studies class partakes in many events outside of the narrow confines of the classroom, such as seminars and company visits, but class monitor David Chen, a first-year Management student at PHBS, stressed the cultural component of this trip. "The purpose of the trip was to allow international students to experience authentic Chinese culture," he said, noting in particular the group's experiences teaching at the Jinping Middle School and the trip to the tea farm.

The second day of the trip began with a six hour bus ride to Chengdu, the capital of Sichuan. There the international students visited Dujiangyan City, the site of a famous irrigation and flood control project built around 250 BC that has protected the Sichuan region ever since. Ultimately proving calmer than the day before, the class enjoyed wandering the city as tourists, taking in the scenery and enjoying the local food. A group trip to a hot spring capped the night off in a relaxing fashion.

The rest was essential, as the first major item on the itinerary for the third day of the trip included climbing Mount Qingcheng, a sacred mountain in the Taoist tradition and a World Heritage Foundation site. After finishing the climb, the class took a bus back to Chengdu to visit one of the city's panda breeding facilities, all before finishing the day with a trip to a restaurant that also hosts performances of classical Sichuan opera for guests. The experience proved fascinating, as many of the international students returned from the trip singling out the opera as the highlight of the trip.

The fourth day saw the group return home, although not before allowing groups of students to independently explore areas of interest around Chengdu. Popular sightseeing spots included the Chengdu International Finance Square, Sichuan University, and a stroll down the Jinli Ancient Street.

The students returned to Shenzhen tired but still beaming from the memories of the trip that they had just completed. First-year Quantitative Finance student Kasamon Chinkulkitniwat expressed what appears to be a consensus opinion in believing that "it was worthwhile life experience to have an opportunity to explore the real China alongside local Chinese people." Noting the experiences at Jinping Middle School, the tea farm and the opera in particular, she was in awe of the "exquisite scenery" and is "very pleased to have been a part of this unforgettable trip."

Reported by Karras Lambert



PHBS Holds Seminar on Green Energy, Business Ethics, and CSR

Be it the smog in Beijing, the floods in South Asia, or the melting of ice in the Arctic, these devastating events are occurring due to climate change produced by heavy industrialization. But the main culprit behind all this is not just industrialization; it is actually the usage of fossil fuels in the industry that leads to such phenomenon.



Green energy, business ethics and corporate social responsibility (CSR) are now becoming increasingly deliberated topics that are considered important not just by scientists and researchers but companies as well. China has also initiated some important projects that deal with this issue. As a key topic in business these days, Peking University HSBC Business School organized a seminar on China's Economic Policy and Perspectives: Study about Energy Policy, Business Ethics and CSR.

The opening remarks were given by Honorable Professors of PHBS, Professor Huang Haifeng and Professor Gerard Stahl shared their views regarding Chinese and German energy policy and CSR. Afterwards special guests from Germany, Dr. Brian Efird, Dr. Leo Lester and Professor Ulf H. Richter presented their work in front of students and faculty of PHBS.



While Dr. Leo Lester presented his work on the analysis of political energy and economy of China and northeast Asia, Dr. Brian Efird shed some light over the understanding of how human decision making impacts energy markets and policy formation.

The last presenter Dr. Ulf H. Richter, who is an Assistant Professor at the University of Nottingham Ningbo, shared his work on Energy Transition and Sense making process in Germany and China in detail. Dr. Richter shed some light over Germany's energy transition that is called "Energiewende", which has its roots in the anti-nuclear movement of the 1970's and has now become Germany's national commitment to meet aggressive economy-wide de-carbonization target. Not just that the country is now working towards its plan of reducing and eliminating the risk of nuclear power until the year 2020 and also reducing energy imports. Further Dr. Richter also shed some light over Germany's energy transition from Germany to China in the form of solar energy.

Afterward, two PHBS students Tomas Sikola and Julian Barg also presented their presentation on the related topic. Afterwards PHBS students and staff asked numerous questions from the speakers regarding important issues faced by China and other countries in implementing rules related to the Green energy transition and energy transition.

Reported by Fayeza Yahya





Tomb-Sweeping Day: A Story Behind the Tradition

Tomb-Sweeping Day, which is also called Qingming Festival, is one of the most important festivals in China. It is around on April 5 every year, the fifteenth day after vernal equinox. Its history can date back to more than two thousand years ago, around the Spring and Autumn Era. Tomb-Sweeping Day is very influential in China not only because it is a historical social custom, but also due to it being one of the twenty-four solar terms that develops in close relationship with Chinese agriculture production.

Tomb-Sweeping Day is a traditional festival to honor relatives and ancestors that has passed away. The custom derives its origin from a famous loyal minister in the Spring and Autumn Era. Prince Wen of Jin, who was also called "Zhonger," was the emperor of the state of Jin around 650 B.C. He was exiled to other states to get avoid political persecution in his childhood. Jie Zitui was Zhonger's loyal attendant at that time. Nineteen years later, Zhonger successfully went back to his state and became the emperor. He rewarded his attendants who accompanied him before generously, except Jie Zitui. Instead of asking for rewards, Jie Zitui chose to live in a remote mountain silently. Later on, Zhonger felt ashamed for forgetting Jie Zitui, so he went to the mountain to find Jie Zitui, but Jie refused to see him.

In order to convince Jie to come out of the mountain, Zhonger came up with an idea to set fire to the mountain. However, Jie still did not come out and he hugged an old willow tree until his death. Zhonger was so full of regret and moved by the actions of Jie Zitui that he set up the day as "Hanshi festival" to memorize his former loyal attendant. On that day, all citizens are forbidden from lighting fires, so they could only eat cold food. The next year when Zhonger went to the mountain to sweep Jie's tomb to memorize Jie, he found the old willow survived. Zhonger was amazed by this phenomenon and he decided to set up the day after "Hanshi festival" as "Qingming festival." And this is the origin of tomb-sweeping day.

Later on around the time of the Qing Dynasty, the two festivals "Hanshi" and "Qingming", were combined together. People celebrated Qingming festival by both eating cold food and sweeping ancestors' tomb. When it comes to Tang Dynasty, the emperors paid lots of attention to the tomb-sweeping festival during that period because they emphasized the concept of "filial piety." From that era on, tomb-sweeping day was regarded as a national holiday for the officers to return back to sweep their ancestors' tomb. This festival also became a moment to remember relatives, friends or even the emperors who have passed away.

Chinese people also celebrate Tomb-sweeping Day because it is one of the twenty-four solar terms in Chinese lunar calendar. In the lunar calendar, one year is divided into twenty-four sections and called the "Twenty-Four terms." This calendar has a close relationship with Chinese agriculture production. Tomb-sweeping day marks the next term after vernal equinox. It is the beginning of a new round agricultural production. In ancient times, the farmers would begin to prepare the seeds and irrigation system during the tomb-sweeping term.

Nowadays, because of the development of industrialism, tomb-sweeping day has mostly lost its agricultural function, but exists as a festival to memorialize ancestors, relatives, and friends who have passed away. It has been a national holiday since 2008. Now Chinese people celebrate tomb-sweeping day by sweeping tombs, eating *Qingtuan* (a kind of dessert for tomb-sweeping day) and having an outing with their family. Even though the custom changes as time goes on, the spirit of tomb-sweeping, which is to honor ancestors and celebrate the approach of spring, still comes out.

Reported by Jiayue Zhang



Remembering Zaha Hadid: World-famous architect, creative mind behind Guangzhou Opera House

Zaha Hadid, the famed female architect known around the world for her structural works featuring sweeping curves and who drew occasional controversy when projects hit huge cost overruns, died on March 31 at the age of 65.

"So sad to hear of death of Zaha Hadid, she was an inspiration and her legacy lives on in wonderful buildings in Stratford and around the world," London Mayor Boris Johnson wrote on Twitter.

Zaha Hadid was widely regarded to be the greatest female architect in the world today and was best known in China for designing the Guangzhou Opera House, the Wangjing SOHO building in Beijing and the capital's Galaxy SOHO development. She also created the unusual aquatics center used for the 2012 London Olympics.

Born in Baghdad in 1950, she studied mathematics at the American University of Beirut before starting her architectural journey in 1972 at the Architectural Association in London. By 1979, she had established her own practice in London—Zaha Hadid Architects—garnering a reputation across the world for her ground-breaking theoretical works including The Peak in Hong Kong (1983), the Kurfurstendamm in Berlin (1986) and the Cardiff Bay Opera House in Wales (1994).

Working with partner Patrik Schumacher, her interest was in the interface between architecture, landscape, and geology; which her practice integrates with the use of innovative technologies often resulting in unexpected and dynamic architectural forms.

In 2004, Zaha Hadid became the first woman to be

awarded the Pritzker Architecture Prize. And recently, she was awarded the RIBA's 2016 Royal Gold Medal, the first woman to be awarded the prestigious honour in her own right. Sir Peter Cook wrote the following: "Surely her work is special. For three decades now, she has ventured where few would dare: if Paul Klee took a line for a walk, then Zaha took the surfaces that were driven by that line out for a virtual dance and then deftly folded them over and then took them out for a journey into space."

Iraqi Prime Minister Haider al-Abadi paid tribute to Hadid, describing her death as a loss for the "whole world". She had "served the world through her creativity and, in losing her, the whole world has lost one of the great energies that served the community", al-Abadi said in a statement.

Hadid's other notable works include the Italian National Museum of 21st Century Arts in Rome, the Heydar Aliyev Center in Baku, Azerbaijan and the Rosenthal Centre for Contemporary Art in Cincinnati, Ohio, in the United States.

"The initial sense of abstractness and strangeness is unavoidable," she said of people observing her work. But she added that this was "not a sign of personal willfulness".

"I believe that the complexities and dynamism of contemporary life cannot be cast into the simple platonic forms provided by the classical canon," she said in her speech when she accepted the Pritzker Prize, the most prestigious award in architecture.

Reported by Yu Siyuan



CE China 2016 Comes to Shenzhen With the Future in Home Tech, VR/AR, Company App Solutions

From April 20-22, 2016 CE China was held in Shenzhen for the first time. It is an international and innovative brand show exhibition for Consumer Electronics. It appeals to many famous and advanced manufacturers to display their intelligent products and convey their future version of consumer electronics.

Walking around the exhibition site was like seeking an interesting possibility in the future. It's well known that machines improve the efficiency and convenience of our daily lives. However, with the great development of Internet and technology, our imaginations are limitless as we hurl into the future. You can control technology in your home even you are out on the town, and you can get rid of the tiring housework with the help of a cleaning robot. There are so many personal needs, which provide the huge market opportunities of consumer electronics. Moreover, Shenzhen is famous for the low costs of material and labor in the field of electronics coupled with a powerful force for creation and profitable investing environment at the same time. This is one of the many reasons they chose Shenzhen as the CE China exhibition site.

The exhibition can be divided into two parts, lectures and products display. The global virtual reality and augmented reality (VR and AR) trends forum in 2016 invited many specialized experts in the hot field of VR and AR, who shared their understandings and predictions in the lectures following. VR can be used for games, videos, medical inspections and three dimensional designs. Until now, it has been very popular with young people and has made a big increase in market share and total economic revenues. It is a totally new way to experience the another realm while also keeping the sensation of a true and present reality. Generally, people wear a pair of glasses to be separated from the real world, but the games or videos provided in a three-dimensional form give you the feeling that you are fighting or flying.

AR, which means augmented reality, offers more chances in technology application. You can feel both the real world and imaginative scenes at the same

time, which is to say you can be with an imaginative star or monster together in your home. According to the vice president of IDG in the Asian market, though VR has made more money and has held more market share for now, after the year of 2020 the circumstance is going to be changed to the reverse situation.

As for the product displays, it mainly contains three parts: consumer electricity devices, personal integration management systems at home, and company application solutions. Consumer electronics, like refrigerators and dishwashing machines, encourage people to enjoy a better quality life and save energy. Personal integration management systems allow you to decide what will happen in your home, no matter where you might be. While company application solutions aim to help early traders develop a characteristic product model, for example, Amazon helping Chinese traders sell products to Europe and North America.

Among the products I saw in the CE China exhibition, there was one electronic pet that fascinated many trade visitors. Different from an animal pet, you can keep an electronic pet, which not only can speak to you and react to your touch, but also monitors your house when you are out. Moreover, he welcomes you back home! Additionally, in the CE exhibition, this kind of electronic pet has been already made and can also be used to accompany and monitor kids when parents out by telling stories and playing games with them.

Impressed by the CE exhibition, I got an overall acknowledgement of the consumer electronics industry and its most creative ideas. Technology is certainly changing our lives for more enjoyment. We should also take an active participate in drawing more useful and interesting possibilities imaginative into reality. When you experience the imagination, you feel the magic of technology.

Reported by Diana Yan



PKU Shenzhen Research Insight: A Word With Professor Yan Chaoyi From SAM

(continued from page 1) ...their functionalities. Unlike the Apple watch, you can barely feel the existence of the stretchable electronics (like a tattoo on your skin) but they can continuously monitor your health conditions like heart beats, body temperature, hydration level, etc. They are also expected to perform diagnosis and give medical treatments automatically when necessary.

NO: Can you tell us about your achievement and its implications?

YCY: Our research mainly involves the synthesis of new materials and structures, develop new fabrication techniques to fabricate new electronic devices. We have developed an innovative method for device fabrication and have successfully demonstrate the fabrication of stretchable photodetectors, strain sensors, electrochromic devices, energy storage devices and more. We will continuously optimize the fabrication processes towards commercialization which requires large scale fabrication with high reliabilities.

NO: If your job/field progresses as you like, what would be the next step in your career?

YCY: We would like to create a startup as the platform to commercialize our research work. Interactions with the industry can provide feedbacks for our research directions by analyzing the demands from end consumers. Meanwhile, I also hope the startup can help to train the students beyond the research scope.

Reported by Hicham Lefnaoui

