Gottfried Konecny: our best friend in photogrammetry and remote sensing of China

Deren Li, Yixuan Zhu and Lite Shi
State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing, Wuhan University, Wuhan, China

Preface

Lebenslauf Prof. Dr.-Ing.mult Gottfried Konecny is one of the most respected names in photogrammetry. He is an Honorary Member of International Society for Photogrammetry and Remote Sensing (ISPRS), Honorary Professor of Wuhan Technical University of Surveying and Mapping, and our best friend.

1. Actively promote the development of photogrammetry and remote sensing education in China

Gottfried Konecny visited China for the first time in 1978, and made a special trip to visit Prof. Wang Zhizhao in Wuhan. In 1979, he visited China again as a member of the German surveying and mapping delegation. And in 1980, he was invited to Wuhan Institute of Surveying and Mapping to give a 2-week serial lecture on photogrammetry and remote sensing, introducing his main achievements in extending photogrammetry to remote sensing, including a first introduction in the world of the photogrammetric collinear equation into satellite remote sensing. He described research achievements in block adjustment, digital photogrammetry, automatic image correlation, and remote sensing applications done at Leibniz University Hanover and in Germany. After that, the German photogrammetry and remote sensing community began to actively recruit Chinese students. Li Keren, Xu Yonglong, Wang Younian, Yang Jun and Meng Lijiu, were among the first batch of students to obtain full scholarships at Leibniz University Hanover and obtained Doctor’s Degrees in Engineering under his guidance. Since then, China’s higher education in surveying and mapping, especially photogrammetry and remote sensing, has embarked on a new stage of modern development.

After several visits to Russia and China, Gottfried believed that Moscow State University of Geodesy and Cartography, Siberian State University of Geosystems and Technologies and Wuhan Technical University of Surveying and Mapping are the three largest education bases in surveying and mapping in the world, and should strengthen cooperation between each other.

Therefore, he actively promoted the communication between Ivan Antipov in Russia, Ammatzia Peled, the former Second Vice president of ISPRS, and Li Deren. The 3S activity of the three university alliance was developed, which have been held in Novosibirsk, Wuhan and Moscow in turn for ten consecutive years, and expanded to Tongji University in Shanghai in 2016. The four universities organize 3S activities in turn, so that the graduate students and senior undergraduate students of China, Russia, other countries in Asia and Europe and the United States may have an opportunity to exchange ideas and study together over every summer vacation, to jointly push forward the development of photogrammetry and remote sensing, and promote progress and friendship of the young talents.

2. Firmly support China’s participation in the activities of the International Society for Photogrammetry and Remote Sensing

China was a country member of ISPRS for a long time. However, for various reasons, the Chinese Society for Geodesy, Photogrammetry and Cartography (CSGPC) did not become an ordinary member of ISPRS. In 1980, as Congress Director of XIVth ISPRS Congress in Hamburg, Gottfried worked with Frederick Doyle of the United States and Jean Cruset of France on the participation of both the mainland and Taiwan of China. There was the perfect result that CSGPS being present as the official representative of China, while Taiwan of China being a regional part of China to join the Congress. This seating arrangement was very crucial and important to the success of the Congress. Gottfried was aware that the representatives of the mainland and Taiwan of China would be embarrassed of sitting together. He arranged the two representatives on two sides of an aisle. However, what he did not expect was that the representative of China was Prof. Wang Zhizhao, while the representative of Taiwan of China, Prof. Shi Huishun, was Prof. Wang’s student. Both were very excited and felt lucky to meet each other on such an occasion.

CONTACT Lite Shi  ilishi@whu.edu.cn
© 2021 Wuhan University. Published by Informa UK Limited, trading as Taylor & Francis Group.
This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.
Everyone expressed sincere gratitude to Gottfried for his support for academic exchanges across the Taiwan Straits. Finally, China successfully returned to ISPRS as the country member. On the XVIth ISPRS Congress in Kyoto, 1988, the German delegation supported Li Deren’s election to be President of ISPRS Commission III for 1988–1992, then President of ISPRS Commission VI for 1992–1996 on the XVIIth ISPRS Congress in Washington, 1992. Then, they gave their support to Chen Jun’s election as President of ISPRS Commission IV, and China’s bid to host the XXIst ISPRS Congress in Beijing, 2008. Therefore, the activities of the CGSPS in ISPRS have been running very smoothly, which is inseparable from the concerns and wisdom of our international friends such as Gottfried Konecny. Now, China has become a new and vigorous force in various ISPRS activities.

3. Vigorously promote the research of photogrammetry and remote sensing in China to catch up with the world level

Some senior experts, such as Gottfried and Fritz Ackermann, actively introduced the achievements of photogrammetry and remote sensing in Germany and the United States, especially the German MOMS Program, which aimed to launch a photogrammetric camera to Mars. Several German institutes participated in this program and introduced their experiences to China. Learning from the MOMS Program, we made proposals to the Chinese government and finally succeeded in developing China’s three-line-array mapping satellite, ZY-3.

Gottfried has always been very concerned about the issue of 1:50,000 global mapping. He deemed that we surveyors should solve the challenge of the full coverage problem in a 1:50,000 global map. He has been actively supported the actions of the United Nations and carried out much research to promote universal 1:50,000 global mapping. With his encouragement, we also used China’s ZY-3 satellite to implement 1:50,000 global automatic mapping tasks without GCP. Now, we can complete 30 million square kilometers’ mapping every year. Gottfried’s original dream is gradually becoming true.

Gottfried and Jacobson have conducted many years of research on high-resolution remote sensing satellites, and promoted the development of China’s high-resolution earth observation system. Now, a 14 high-resolution remote sensing satellites plan of China has been scheduled and formed. All the 14 satellites are scheduled to be launched by 2020.

4. A thriving friendship with Chinese scholars in photogrammetry and remote sensing

Ever since his first visit to China in 1978, Gottfried has come to China almost every year to visit institutes or participate in academic activities. He participated in many activities in China, such as commemoration of Prof. Wang Zhizhuo’s 80th, 90th and 100th birthday, global release of Principles of Photogrammetry compiled by Prof. Wang Zhizhuo, various ISPRS activities in China, those organized by Wuhan Technical University of Surveying and Mapping, State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS), and technical activities of Western mapping in China. In 2006, the Workshop on Western Mapping in China was held in Chengdu. After the meeting, the State Bureau of Surveying and Mapping organized foreign experts to visit Tibet. It was a great pity that Gottfried did not get the permission to visit Tibet related to his physical examination. However, he bore in mind that he would visit Tibet someday in the future. Finally, accompanied by his son, he made it at the age of 85. Furthermore, at the age of 89, accompanied by his daughter, he attended the International Conference on Geomatics in the Big Data Era held at Guilin University of Technology in November 2019 and gave a lecture on How to Write Scientific Papers to the students. In this regard, we would like to express our sincere gratitude to the elders of the international photogrammetry and remote sensing community, represented by Gottfried, for their support of China. And wish Gottfried a long and healthy life!

In 1988, when Li Deren was President of ISPRS Commission III, China was not strong enough and the governmental administration could only support him to go abroad for international meetings once a year. In order to support Li Deren’s participation in ISPRS international activities, Gottfried applied for a special funding project in Germany. Every time Li Deren went abroad for a meeting, he would go to Gottfried for reimbursement. At the same time, Li Deren would go to Leibniz University Hanover for speeches. This helped make possible Li Deren’s participation in ISPRS activities during those years, and strongly supported Chinese scholars step onto the international stage.

Gottfried also held an activity at TU Berlin for Prof. Wang Zhizhuo’s Gold Doctor Celebration at the age of 80. Because of the heavy fog, Gottfried’s plane did not take off, so he took a taxi from Hanover to Berlin to attend the event, and hurried back to Hanover to prepare for the visit of Wang Zhizhuo, Zhang Zuxun, and Li Deren. This action fully embodies his deep friendship with Chinese scholars.

In 1984, Gottfried invited Zhang Zuxun to visit Leibniz University Hanover and organized a Sino-German academic exchange activity. Li Deren was studying at University of Stuttgart at that time and was invited to Hanover to join the event as well. When Li Deren and Zhu Yixuan visited Leibniz University Hanover from Zurich in September 1991, Gottfried
passionately welcomed them and personally led them on a visit to his research institute, introducing the world’s first all-functional stereo-plotter made in Germany in 1903. This time, Gottfried also reimbursed the travel expenses for the couple from and to Zurich.

There is an old saying in China that “the draught never forgets the well digger”. Nowadays, China’s national strength is getting stronger, and it is time for us to make greater contributions to our old friends from all over the world and contribute to the undertakings of the international photogrammetry and remote sensing community.

This year is the 90th anniversary of Prof. Konecny’s birthday. Let us wish him and his wife “May their fortune be as boundless as the East Sea, and live a long and happy life”!

Notes on contributor

Deren Li is a scientist in the field of photogrammetry and remote sensing. He received his doctorate from the University of Stuttgart in 1985 and an honorary doctorate from ETH Zürich in 2008. He enjoys dual memberships of both the Chinese Academy of Sciences and the Chinese Academy of Engineering. He is also a member of the International Eurasia Academy of Sciences and the International Academy of Astronautics. In 2012, the ISPRS made him an Honorary Member, which is their highest honor and which they limit to a maximum of ten people at any time. Professor Deren Li has also held the position of President of Wuhan Technical University of Surveying and Mapping, and Director of the State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS). At present, he is the Chairman of the academic committees for LIESMARS, and Director of the Collaborative Innovation Center of Geospatial Technology. ISPRS awards Prof. Deren Li with the Brock Gold Medal in Recognition of Outstanding Contributions to Photogrammetry in 2020.