

# Han Hu

Professor, Associate Director of Department  
Department of Surveying, Mapping and Remote Sensing  
Faculty of Geosciences and Environmental Engineering  
Southwest Jiaotong University

Email: [han.hu@swjtu.edu.cn](mailto:han.hu@swjtu.edu.cn)  
Web: <https://vrlab.org.cn/~hanhu>  
Phone: +86 18929336434

## EDUCATION

Ph.D. LIESMARS, Wuhan University, Wuhan, 2015. Supervisor: Prof. Qing Zhu  
B.Eng. School of Remote Sensing and Information Engineering, Wuhan University, Wuhan, 2010

## ACADEMIC APPOINTMENTS

2019– Southwest Jiaotong University  
Professor, Faculty of Geosciences and Environmental Engineering  
2015–19 The Hong Kong Polytechnic University  
Postdoctoral Fellowship, Department of Land Surveying and Geo-Information  
2011–13 The Hong Kong Polytechnic University  
Research Assistant, Department of Land Surveying and Geo-Information

## RESEARCH AREAS

Urban Informatics and 3D Modeling  
Digital Elevation Models  
Planetary Mapping

## RESEARCH SOFTWARE HIGHLIGHTS

Link	He leads the research and development of the software suite, Link, for global mapping using stereo satellite images. Link has been adopted by all the production data center in China, which accounts for more than 1000 seats. Related outputs based on this research was awarded State Science and Technology Award of China, Second Class (2020, Rank 3rd.).
OSketch	His research outputs on 3D GIS and oblique photogrammetry has been integrated into a 3D modeling software for urban environment, OSketch. It has been sold or promoted across the world for more than 300 suites.
Planetary3D	His research outputs on planetary mapping lead to the development of software suite, Planetary3D. It supported landing site selection for Chang'E-3 and Chang'E-4 mission of China. It was also highlighted by Nature Index and some outputs are adopted by NASA's ASP.

## AWARDS AND GRANTS

### Grants and Fellowships

- 2021–23 **Recruitment program for overseas young professionals of China**, ¥2,000,000, PI.
- 2021–23 Supporting fellowships for overseas professionals, Southwest Jiaotong University, ¥2,000,000, PI.
- 2021–24 Binary programming for structured reconstruction of buildings in complex urban environment, National Natural Science Foundation of China, ¥560,000, PI.
- 2020 InSAR DSM Filtering and Editing System, National Geomatics Center of China, ¥500,000, PI
- 2020–22 1000 talents plan of Sichuan, youth project, ¥500,000, PI.
- 2020–22 Support fellowships for excellent young professors, Southwest Jiaotong University, ¥300,000, PI.
- 2019–22 Emergency surveying and mapping using Ka-InSAR, National Key Research and Development Program of China, ¥550,000, PI.
- 2019–21 Start-up research fund program, Southwest Jiaotong University, ¥300,000, PI.
- 2017–19 Metric learning for efficient feature matching of aerial oblique images, National Natural Science Foundation of China, ¥210,000, PI.
- 2016–18 LOD modeling of urban buildings using aerial oblique images, Laboratory of Urban Land Resources Monitoring and Simulation, ¥200,000, PI.
- 2017–21 Theory of oblique photogrammetry for LOD modeling of buildings, National Natural Science Foundation of China, ¥3,000,000, Co-I.

### Awards

- 2020 **State Science and Technology Award of China, Second Class** (Rank 3rd.)
- 2019 Geographic Information Science Award of China, First Class (Rank 3rd.)
- 2019 National Land Resources Science and Technology Award of China, Second Class (Rank 2nd.)
- 2019 Survey and Mapping Science and Technology Award of China, Second Class (Rank 3rd.)
- 2018 Geographic Information Science Award of China, First Class (Rank 2nd.)
- 2018 The Emerging Star Award of GIS
- 2016 Geneva International Exhibition of Inventions, Gold Medal
- 2016 Geneva International Exhibition of Inventions, Special Merit Award
- 2016 ASPRS Talbert Abrams Award, Second Honorable Mention
- 2014 ASPRS John I. Davidson President Award, Third Place

## PUBLICATIONS

### Authored Articles in Peer-Reviewed Journals

- J1      Zhu, Q., Wang, Z., **Hu, H.\***, Xie, L., Ge, X., Zhang, Y., 2020. Leveraging photogrammetric mesh models for aerial-ground feature point matching toward integrated 3D reconstruction. *ISPRS Journal of Photogrammetry and Remote Sensing* 166, 26 - 40.
- J2      Zhu, Q., Chen, L. \*, **Hu, H.\***, Pirasteh, S., Li, H., Xie, X., 2020. Unsupervised Feature Learning to Improve Transferability of Landslide Susceptibility Representations. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*.
- J3      Wang, F., **Hu, H.\***, Ge, X., Xu, B., Zhong, R., Ding, Y., Xie, X., Zhu, Q.\*, 2020. Multientity Registration of Point Clouds for Dynamic Objects on Complex Floating Platform Using Object Silhouettes. *IEEE Transactions on Geoscience and Remote Sensing*.
- J4      Zhu, Q., Zhang, M., **Hu, H.\***, Wang, F., 2020. Interactive Correction of a Distorted Street-View Panorama for Efficient 3-D Façade Modeling. *IEEE Geoscience and Remote Sensing Letters* 2020 (1), 1-5.
- J5      Ge, X., **Hu, H.\***, 2020. Object-based incremental registration of terrestrial point clouds in an urban environment. *ISPRS Journal of Photogrammetry and Remote Sensing* 161, 218–232.
- J6      Ge, X., **Hu, H.\***, Wu, B., 2019. Image-Guided Registration of Unordered Terrestrial Laser Scanning Point Clouds for Urban Scenes. *IEEE Transactions on Geoscience and Remote Sensing* 57 (11), 9264 - 9276.
- J7      **Hu, H.**, Wu, B., Chen, L., 2019. Color balancing and geometrical registration of high-resolution planetary imagery for improved orthographic image mosaicking. *Planetary and Space Science* 178.
- J8      **Hu, H.**, Wu, B., 2018. Block adjustment and coupled epipolar rectification of LROC NAC images for precision lunar topographic mapping. *Planetary and Space Science* 160, 26-38.
- J9      Zhu, Q., Wang, F.\*, **Hu, H.\***, Ding, Y., Xie, J., Wang, W., Zhong, R., 2018. Intact Planar Abstraction of Buildings via Global Normal Refinement from Noisy Oblique Photogrammetric Point Clouds. *ISPRS International Journal of Geo-Information* 7 (11), 431-452.
- J10     Xie, L., Zhu, Q.\*, **Hu, H.\***, Wu, B., Li, Y., Zhang, Y., Zhong, R., 2018. Hierarchical Regularization of Building Boundaries in Noisy Aerial Laser Scanning and Photogrammetric Point Clouds. *Remote Sensing* 10 (12), 1996.
- J11     Zhu, Q., Li, Y., **Hu, H.\***, Wu, B., 2017. Robust point cloud classification based on multi-level semantic relationships for urban scenes. *ISPRS Journal of Photogrammetry and Remote Sensing* 129, 86-102.
- J12     **Hu, H.**, Wu, B. \*, 2017. Bound-Constrained Multiple-Image Least-Squares Matching for Multiple-Resolution Images. *Photogrammetric Engineering and Remote Sensing* 83 (10), 667–677.

- J13** Xie, L., **Hu, H.\***, Wang, J., Zhu, Q., Chen, M., 2016. An asymmetric re-weighting method for the combined bundle adjustment of aerial oblique images. *ISPRS Journal of Photogrammetry and Remote Sensing* 117, 92-107.
- J14** **Hu, H.**, Ding, Y.\*, Zhu, Q., Wu, B., Xie, L., Chen, M., 2016. Stable least-squares matching for oblique images using bound constrained optimization and a robust loss function. *ISPRS Journal of Photogrammetry and Remote Sensing* 118, 53-67.
- J15** **Hu, H.\***, Zhu, Q., Du, Z., Zhang, Y., Ding, Y., 2015. Reliable spatial relationship constrained feature point matching of oblique aerial images. *Photogrammetric Engineering and Remote Sensing* 81 (1), 49-58.
- J16** **Hu, H.**, Ding, Y.\*, Zhu, Q., Wu, B., Lin, H., Du, Z., Zhang, Y., Zhang, Y., 2014. An adaptive surface filter for airborne laser scanning point clouds by means of regularization and bending energy. *ISPRS Journal of Photogrammetry and Remote Sensing* 92, 98-111,
- J17** Wu, B., **Hu, H.\***, Guo, J., 2014. Integration of Chang'E-2 imagery and LRO laser altimeter data with a combined block adjustment for precision lunar topographic modeling. *Earth and Planetary Science Letters* 391, 1-15.

#### Co-Authored Articles in Peer-Reviewed Journals

- J1** Li, Shiming<sup>†</sup>, Xuming Ge<sup>†</sup>, **Han Hu**, and Qing Zhu\*. Laplacian Fusion Approach of Multi-Source Point Clouds for Detail Enhancement. *ISPRS Journal of Photogrammetry and Remote Sensing* 171 (2021): 385–96. <https://doi.org/10.1016/j.isprsjprs.2020.11.021>.
- J2** Wu, B., Li, F., **Hu, H.**, Zhao, Y., Wang, Y., Xiao, P., Li, Y., Liu, W.C., Chen, L., Ge, X., Others, 2020. Topographic and Geomorphological Mapping and Analysis of the Chang'E-4 Landing Site on the Far Side of the Moon. *Photogrammetric Engineering & Remote Sensing* 86 (4), 247–258.
- J3** Ge, X., Wu, B., Li, Y., **Hu, H.**, 2019,. A Multi-Primitive-Based Hierarchical Optimal Approach for Semantic Labeling of ALS Point Clouds. *Remote Sensing* 11 (10), 1243.
- J4** Wu, B., Wang, Y., Lin, T.J., **Hu, H.**, Werner, S.C., 2019. Impact cratering in and around the Orientale Basin: Results from recent high-resolution remote sensing datasets. *Icarus* 333, 343-355.
- J5** Wu, B., Zeng, H., **Hu, H.**, 2018. Illumination invariant feature point matching for high-resolution planetary remote sensing images. *Planetary and Space Science* 152, 45-54.
- J6** Wu, B., Xie, L., **Hu, H.**, Zhu, Q., Yau, E., 2018. Integration of aerial oblique imagery and terrestrial imagery for optimized 3D modeling in urban areas. *ISPRS Journal of Photogrammetry and Remote Sensing* 139, 119-132.
- J7** Tang, S., Chen, W., Wang, W., Li, X., Darwish, W., Li, W., Huang, Z., **Hu, H.**, Guo, R., 2018. Geometric Integration of Hybrid Correspondences for RGB-D Unidirectional Tracking. *Sensors (Basel, Switzerland)* 18 (5).

- J8** Chen, L., Zhu, Q., Xie, X., **Hu, H.**, Zeng, H., 2018. Road Extraction from VHR Remote-Sensing Imagery via Object Segmentation Constrained by Gabor Features. *ISPRS International Journal of Geo-Information* 7 (9), 362.
- J9** He, M., Zhu, Q., Du, Z., **Hu, H.**, Ding, Y., Chen, M., 2016. A 3D Shape Descriptor Based on Contour Clusters for Damaged Roof Detection Using Airborne LiDAR Point Clouds. *Remote Sensing* 8 (3), 189.
- J10** Tang, S., Zhu, Q., Chen, W., Darwish, W., Wu, B., **Hu, H.**, Chen, M., 2016. Enhanced RGB-D Mapping Method for Detailed 3D Indoor and Outdoor Modeling. *Sensors* 16 (10), 1589.
- J11** Wu, B., Tang, S., Zhu, Q., Tong, K., **Hu, H.**, Li, G., 2015. Geometric integration of high-resolution satellite imagery and airborne LiDAR data for improved geopositioning accuracy in metropolitan areas. *ISPRS Journal of Photogrammetry and Remote Sensing* 109, 139-151.
- J12** Wu, B., Guo, J., Hu, H., Li, Z., Chen, Y., 2013. Co-registration of lunar topographic models derived from Chang'E-1, SELENE, and LRO laser altimeter data based on a novel surface matching method. *Earth and Planetary Science Letters* 364, 68-84.
- J13** Wu, B., **Hu, H.**, Zhu, Q., Zhang, Y., 2013. A flexible method for zoom lens calibration and modeling using a planar checkerboard. *Photogrammetric Engineering and Remote Sensing* 79 (6), 555-571.
- J14** Li, X., Xu, W., Zhu, Q., Hu, J., **Hu, H.**, Zhang, Y., 2012. A Multi-Level Cache Approach for Realtime Visualization of Massive 3D GIS Data. *International Journal of 3-D Information Modeling* 1 (3), 37-48.

#### Conference Proceedings

- C1** **Hu, H.\***, Wang, L., Zhang, M., Ding, Y., Zhu, Q., 2020. Fast and regularized reconstruction of building façades from street-view images using binary integer programming. *ISPRS Annals of Photogrammetry, Remote Sensing and Spatial Information Sciences* V-2-2020, 365–371.
- C2** **Hu, H.**, Wu, B.\*, 2019. Planetary3D: A photogrammetric tool for 3D topographic mapping of planetary bodies. *ISPRS Annals of Photogrammetry, Remote Sensing and Spatial Information Sciences* IV-2/W5, 519-526.
- C3** **Hu, H.**, Wu, B.\*, 2017. Precision 3D surface reconstruction from LRO NAC images using semi-global matching with coupled epipolar rectification. *International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences* 42.
- C4** **Hu, H.\***, Chen, C., Wu, B., Yang, X., Zhu, Q., Ding, Y., 2016. Texture-Aware Dense Image Matching using Ternary Census Transform. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences* III-3, 59-66.
- C5** Gerke, M., Nex, F., Remondino, F., Jacobsen, K., Kremer, J., Karel, W., **Hu, H.**, Ostrowski, W., 2016. Orientation of Oblique Airborne Image Sets – Experiences from the ISPRS EuroSDR Benchmark on Multi-Platform Photogrammetry. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences* XLI-B1, 185-191.

- C6** Xie, L.\*, **Hu, H.**, Zhu, Q., Wu, B., Zhang, Y., 2017. Hierarchical Regularization of Polygons for Photogrammetric Point Clouds of Oblique Images. *International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences* XLII (1-W1), 35-40.
- C7** Chen, M., Zhu, Q., Huang, S., **Hu, H.**, Wang, J., 2016. Robust Low-Altitude Image Matching Based on Local Region Constraint and Feature Similarity Confidence. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences* III-3, 19-26.
- C8** Tang, S., Zhu, Q., Chen, W., Darwish, W., Wu, B., **Hu, H.**, Chen, M., 2016. Enhanced RGB-D Mapping Method for Detailed 3D Modeling of Large Indoor Environments. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences* III-1, 151-158.

#### Book Chapters

- B1** Wu, B., **Hu, H.**, Liu, W.C., 2018. Photogrammetric processing of LROC NAC images for precision lunar topographic mapping., *Planetary Remote Sensing and Mapping*. CRC Press, pp. 143-166.
- B2** Wu, B., Guo, J., **Hu, H.**, 2014. Integration and Coregistration of Multisource Lunar Topographic Data Sets for Synergistic Use. In: Jin, S. (Eds.), *Planetary Geodesy and Remote Sensing*. Taylor & Francis Group/CRC Press, Boca Raton, FL, USA, pp. 99-120.

#### Articles in Peer-Reviewed Journals in Chinese

- J1** WANG Libin, **HU Han\***, ZHU Qing, DING Yulin, CHEN Min. A semantic enhancement method for photorealistic mesh model based on local parameterization[J]. *Acta Geodaetica et Cartographica Sinica*, 2020, 49(2): 225-234.
- J2** **HU Han**, DING Yulin\*, ZHU Qing, et al. Precision global DEM generation based on adaptive surface filter and Poisson terrain editing[J]. *Acta Geodaetica et Cartographica Sinica*, 2019, 48(3): 374-383. DOI: 10.11947/j.AGCS.2019.20180010
- J3** ZHU Qing, WENG Qiqiang, **HU Han\***, WANG Feng, WANG Weixi, YANG Weijun, ZHANG Pengcheng. Multi-View Image Precise Texture Mapping Method Based on Frame Buffer. *Journal of SouthWest JiaoTong University*, 2019, 54(2): 269-277.
- J4** ZHU Qing, LI Shiming, **HU Han\***, ZHONG Ruofei, WU Bo, XIE Linfu. Multiple Point Clouds Data Fusion Method for 3D City Modeling[J]. *Geomatics and Information Science of Wuhan University*, 2018, 43(12): 1962-1971.
- J5** ZHU Qing, CHEN Chongtai, **HU Han\***, DING Yulin. An Adaptive Dense Matching Method for Airborne Images Using Texture Information[J]. *Acta Geodaetica et Cartographica Sinica*, 2017, 46(1): 62-72.
- J6** **HU Han\***. A Supervised Metric Learning Approach for Efficient Aerial Oblique Image Matching Using Neighborhood Information[J]. *Acta Geodaetica et Cartographica Sinica*, 2016, 45(2): 250-250.

- J7** LI Yuan, **HU Han\***, XIE Jinhua, ZHU Qing, ZHANG Yeting, DU Zhiqiang, PENG Mingjun, GAO Shan . An Automatic Texture Mapping Method Using Local Surface Consistency Constraint[J]. GEOMATICS AND INFORMATION SCIENCE OF WUHAN UNIVERS, 2016, 41(12): 1599-1604.
- J8** ZHU Qing, ZENG Haowei, DING Yulin, XIE Xiao, LIU Fei, ZHANG Liguu, LI Haifeng, **HU Han**, ZHANG Junxiao, CHEN Li, CHEN Lin, ZHANG Pengcheng, HE Huagui. A review of major potential landslide hazards analysis[J]. *Acta Geodaetica et Cartographica Sinica*, 2019, 48(12): 1551-1561.
- J9** WANG Jingxue, ZHU Qing, ZHANG Yunsheng, **HU Han**. Phase Grouping Line Extraction Algorithm Using Overlapped Partition[J]. *Acta Geodaetica et Cartographica Sinica*, 2015, 44(7): 768-774.
- J10** XIAO Xiongwu, GUO Bingxuan, LI Deren, ZHAO Xia, JIANG Wanshou, **HU Han**, ZHANG Chunsen. A Quick and Affine Invariance Matching Method for Oblique Images[J]. *Acta Geodaetica et Cartographica Sinica*, 2015, 44(4): 414-421.
- J11** HE Meizhang, ZHU Qing, DU Zhiqiang, ZHANG Yeting, **HU Han**, LIN Yueguan, QI Hua. Contour Cluster Shape Analysis for Building Damage Detection from Post-earthquake Airborne LiDAR[J]. *Acta Geodaetica et Cartographica Sinica*, 2015, 44(4): 407-413.
- J12** HUANG Miner, DU Zhiqiang, ZHU Qing, ZHANG Yeting, **HU Han**. 3D Building Façades and Roofs Objects Extraction from Pixel Height Map[J]. *Geomatics and Information Science of Wuhan University*, 2014, 39(10): 1221-1224.

## Patents

- P1** **Han Hu**, Yulin Ding, Qing Zhu, Hua Qi, 2018. *Adaptive point-cloud filtering method for complex terrain structure*, CN105118090A.

## ACADEMIC TALKS

### Invited Talks

- 2020 “Terrain modeling using new generation aerial point clouds data”, 7th China LiDAR Conference, Nov. 20–22, Beijing, China.
- 2020 “Global scale terrain modeling using stereo satellite images”, 6th Annual Conference of High Resolution Observation, Nov.17–19, Changsha, China.
- 2020 “3D Modeling of Complex Urban Street Environments”, 3rd Urban Remote Sensing Conference, Oct. 31, Shanghai, China.
- 2020 “Aerial-ground integrated LOD modeling of buildings”, China Geo-Informatics Congress, Oct. 23–24, Nanning, China.
- 2020 “Aerial-ground integrated 3D modeling of urban environment”, Key Laboratory of Land Resources Monitoring and Simulation, Jun. 30, Shenzhen, China.

- 2019 “Refined building reconstruction and mesh editing through oblique photogrammetry”, Annual Meeting of Photogrammetry Committee of CSGPC, Dec. 6–8, Beijing, China.
- 2019 “An integrated approach for building reconstruction from aerial oblique images and street-view images”, Geospatial Modeling and Visualization Doctoral Student Forum, Nov. 29–Dec.1, Wuhan, China.
- 2019 “Natural resources management in 3D GIS”, Geographic Information Science Youth Forum, Sept. 28, Chongqing, China.
- 2019 “Oblique photogrammetry for large scale urban modeling”, Seminar on Big Data Public Services for Government Affairs, Oct. 25–27, Xiangxi State, China
- 2018 “LOD building modeling from aerial oblique images”, CLOUD EXPO ASIA, May 17, Hong Kong, China
- 2017 “Comparison of LOD modeling approaches in urban environment”, Annual Conference of China Society for Geodesy, Photogrammetry and Cartography, Nov., Nanjing, China
- 2016 “An efficient and interactive approach for building reconstruction for complex buildings”, Annual Conference of China Society for Geodesy, Photogrammetry and Cartography, Nov., Nanning, China

#### **Oral Presentations**

- 2020 “Fast and regularized reconstruction of building façades from street-view images using binary integer programming”, ISPRS Congress, Aug. 31–Sept. 2, Nice, France (online).
- 2019 “Planetary3D: A photogrammetric tool for 3D topographic mapping of planetary bodies”, Geospatial Week, Jun. 10–14, Enschede, Netherlands.
- 2017 “Precision 3D surface reconstruction from LRO NAC images using semi-global matching with coupled epipolar rectification”, ISPRS PRSM, Aug. 13–16, Hong Kong
- 2016 “Texture-Aware Dense Image Matching using Ternary Census Transform”, ISPRS Congress, Jul. 12–19, Prague, Czech

#### **Campus Talks**

- 2020 “How to apply and prepare for graduate study”, Series Lectures on Career Development, Southwest Jiaotong University, Nov. 23, Chengdu, China.
- 2020 “Seminars on recruitment of overseas professionals in Singapore by Southwest Jiaotong University”, Oct. 6, Chengdu, China.
- 2020 “Seminars on recruitment of overseas professionals in North America by Southwest Jiaotong University”, Jun. 10, Chengdu, China.

### **PROFESSIONAL ACTIVITIES**

#### **Editorial Service and Professional Memberships**

- 2019– Editorial Board Member, Journal of Smart Cities
- 2019–23 Committee Member, ISDE Chinese Committee on Virtual Geographical Environment



### **Session Chair/Discussant**

- 2020 “Point Clouds Fusion and Registration”, Co-Chair, 7th China LiDAR Conference. Nov. 20–22, Beijing, China.
- 2020 “Digital Twin and General Geospatial Intelligence”, Chair, China Geo-Informatics Congress, Oct. 23–24, Nanning, China .
- 2019 “Methods of analysis and simulation of geographic phenomena and processes”, Chair, 7th Virtual Geographical Environment Conference of China. Oct. 30–Nov. 1, Fuzhou, China.

### **Organizing Committee**

- 2017 Member, ISPRS International Symposium on Planetary Remote Sensing and Mapping, Aug. 13–16, Hong Kong, China
- 2011 Member, ISPRS Joint Workshop on 3D City Modeling & Applications and the 6th 3D GeoInfo Conference, Jun. 26–28 Wuhan, China

### **Invited Panelist and Symposia**

- 2020 “Development of mapping systems with satellite L-SAR data.” Symposium held by Land Satellite Remote Sensing Application Center, Ministry of Natural Resources, Oct. 12, Xian, China.
- 2020 “Preliminary experimental results of terrain modeling from satellite SAR data”. Symposium held by Heilongjiang Bureau of Surveying, Mapping and Geomatics, Ministry of Natural Resources, Sept. 28, Harbin, China.
- 2020 “Standards on construction and maintenance of global geographic information resources using satellite SAR data.” Panelist invited by National Geomatics Center of China, Jul. 6, Beijing, China.
- 2020 “Terrain modeling and mapping using satellite SAR data”. Symposium held by National Geomatics Center of China, Jul. 3, Beijing, China.
- 2020 “Standards on the production of photorealistic 3D model of China.” Panelist invited by National Geomatics Center of China, May 14, Beijing, China.

## **TEACHING EXPERIENCE**

### **Southwest Jiaotong University**

Basis of Photogrammetry

### **The Hong Kong Polytechnic University**

GIS Applications (TA)

## **STUDENTS SUPERVISION**

### **Supervised Students**

- 2020– Shunfu Mao, M.Eng. student, Digital Elevation Models.

- 2020– Jiangyong Han, M.Eng. student, Digital Elevation Models.
- 2020– Yongkuo Hou, M.Eng. student, Digital Elevation Models.
- 2020– Xiaoyu Huang, M.Eng. student, Digital Elevation Models.
- 2019– Xinrong Liang, M.Eng. student, Urban Informatics and 3D Modeling.
- 2019– Bo Feng, M.Eng. student, Urban Informatics and 3D Modeling.

#### **Co-Supervised Students**

- 2020– Libin Wang, Ph.D. student, Urban Informatics and 3D Modeling.
- 2020– Cheng Liao, Ph.D. student, Urban Informatics and 3D Modeling.
- 2020– Chuan Zhang, Ph.D. student, Photogrammetry and Remote Sensing.
- 2019– Qisen Shang, Ph.D. student, Urban Informatics and 3D Modeling.
- 2019– Daiwei Zhang, Ph.D. student, Photogrammetry and Remote Sensing.
- 2018– Zhendong Wang, Ph.D. student, Photogrammetry and Remote Sensing.
- 2018– Li Chen, Ph.D. student, Disaster Monitoring and Mitigation.
- 2018– Haojia Yu, Ph.D. student, Urban Informatics and 3D Modeling.
- 2017– Shiming Li, Ph.D. candidate, Urban Informatics and 3D Modeling.
- 2017– Haowei Zeng, Ph.D. candidate, Disaster Monitoring and Mitigation.
- 2017– Lin Chen, Ph.D. candidate, Disaster Monitoring and Mitigation.
- 2016– Shengzhi Huang, Ph.D. candidate, Photogrammetry and Remote Sensing.

#### **Former Co-Supervised Students**

- 2016–20 Feng Wang, Ph.D., “Reconstruction at LOD-2 level of building models by means of contour features from oblique photogrammetry”, now Postdoctoral Fellow, Guilin University of Technology.
- 2015–19 Linfu Xie, Ph.D., “Integration of aerial and ground data for optimized 3D modeling in urban areas”.
- 2016–19 Dengxing Wang, M.Eng., “Precision localization of street-view panorama based on aerial oblique images”.
- 2016–19 Tong Kuai, M.Eng., “Contour line restricted façade optimization of photogrammetric mesh models”.
- 2016–19 Mier Zhang, M.Eng., “Method for correcting façade texture of street-view image considering rigid shape manipulation”.
- 2016–19 Bohang Chen, M.Eng., “Global DEM accuracy evaluation method based on GLAS laser altimetry data”.
- 2016–19 Linlin Zhang, M.Eng., “Optimization method of fragmented textures of detailed building models for high performance visualization”.
- 2015–18 Qiqiang Weng, M.Eng., “An Automatic Texture Mapping Method of 3D Building Models Based on Oblique Photogrammetry”.

- 2015–18 Tao Zhang, M.Eng., “A oblique images feature matching method based on parallax relaxation transmission constraint”.
- 2014–17 Chongtai Chen, M.Eng., “Texture-aware adaptive dense matching for oblique images”.
- 2013–16 Yuan Li, M.Eng., “Semantic segmentation of point clouds with multi-level relationships”.

### **Awards Received by Students**

- 2020 Lin Chen, Cheng Liao, Haojia Yu, **Second Place (Prize ¥100,000), Digital China Summit, Smart Government Competition.** [\[Web\]](#)
- 2020 Lin Chen, Gold Medal, Sichuan Internet+ Contest.
- 2019 Mier Zhang, Best Youth Paper Award, CVGE.
- 2018 Linlin Zhang, Best Youth Paper Award, First Class, Annual Conference of CSGPC.
- 2018 Shiming Li, Best Youth Paper Award, Second Class, Annual Conference of CSGPC.
- 2014 Yuan Li, Best Youth Paper Award, First Class, Annual Conference of CSGPC.

### **Other Activities by Students**

- 2020 Lin Chen, Rank 6, Gaofen Cup, Semantic segmentation of polarized SAR data. [\[Web\]](#)
- 2020 Cheng Liao, final score: 0.690, CCF Big Data & Computing Intelligence Contest, Plot segmentation based on remote sensing imagery, CCF & Baidu. [\[Web\]](#)
- 2020 Cheng Liao, Rank 31/1732, National Artificial Intelligence Challenge (Huawei Shengteng Cup) AI + Remote Sensing, Huawei & Shenzhen. [\[Web\]](#)
- 2020 Cheng Liao, Rank 1, Huawei Cloud Cup AI Competition, Huawei. [\[Web\]](#)

## **SERVICE**

### **Academic Journal Peer Review**

*Acta Geodaetica et Cartographica Sinica*

*Advances in Space Research*

*Geo-spatial Information Science*

*Geosciences*

*IEEE Geoscience and Remote Sensing Letters*

*IEEE Journal of Biomedical and Health Informatics*

*IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*

*IEEE Transactions on Geoscience and Remote Sensing*

*IEEE Transactions on Industrial Informatics*

*International Journal of Geographical Information Science*

*International Journal of Remote Sensing*

*ISPRS Journal of Geo-Information*

*ISPRS Journal of Photogrammetry and Remote Sensing*

*Photogrammetric Engineering & Remote Sensing*

*Photogrammetric Record*

*Remote Sensing Letters*

*Remote Sensing*

*Sensors*

*Transactions in GIS*

### **Funding Agency Peer Review**

National Natural Science Foundation of China

### **Service to Department and Faculty**

Ph.D. program admissions committee, SWJTU FGEE, 2021

Committee on Discipline Planning of Surveying and Mapping for 2021–2025, SWJTU FGEE, 2020

Ph.D. program admissions committee, SWJTU FGEE, 2020

Master program admissions committee, SWJTU FGEE, 2020

### **SELECTED MEDIA COVERAGE**

- |      |  |
|------|--|
| 2020 | SWJTU, “VGE team finished in second place at the Innovative Application Competition of Digital China Innovation Contest 2020·Digital Government”, Jul. 13. <a href="#">[Web]</a> |
| 2020 | 36 Kr, “Development of Precision 3D Models for the Geographic Environment of New Generation Infrastructure”, Apr. 17. <a href="#">[Web]</a>                                      |