

# Assistant Professor YE, BEN

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## Academic Qualification

2009.9~2013.6 Bachelor's Degree Beijing Normal University, Zhuhai Software Engineering  
2013.9~2015.6 Master's Degree Macau University of Science and Technology Information Technology  
2015.9~2019.6 Doctorate Degree Macau University of Science and Technology Space Information Technology  
2019.11-present Postdoctoral Fellow Macau University of Science and Technology Information Technology

## Patents

Zhanchuan Cai, Ben Ye, Ting Lan, and Youqing Xiao, "Systems and Methods for Reducing Computer Resources Consumption to Reconstruct Shape of Multi- Object Image", US Patent, Grant No. 10062187, August 2018.  
Zhanchuan Cai and Ben Ye, "A DEVICE AND A METHOD FOR CREATING AN IMAGE", Australia Innovation Patents, Grant: No.2016101778, October 2016.

## Research Area

Image processing, Computer graphics, Algorithms, Image features and matching, Deep learning.

## Projects

NSFC Research and application of surface repair technology for defect figure. 2012~2013  
FDCT Research on Digital Lunar Topography, Components Analysis and Space Plasma Environment near the Moon based on Chang'e-2 Exploration Data. 2013~2014  
FDCT Research on algorithms and applications for data interpolation and removal of redundancy in an era of big data. 2014~2015  
FDCT Theoretical Approach and its Application for Multi-Level Overall Representation of Multiple Objects. 2016~2019  
FDCT Theoretical methods and applications in visual media processing. 2019~Present  
FDCT Research on Rapid Detection and Recognition Technologies of COVID-19 CT Images. 2020~Present

## Awards

Third Prize of the Macau Science and Technology Award—Technological Invention Award(Co-awarded), Science and Technology Development Fund of Macau SAR, First Prize of the Outstanding Cultural and Academic Award (Academic Year 2017/18), Macau University of Science and Technology, 2018.  
Third Prize of the Outstanding Cultural and Academic Award (Academic Year 2016/17), Macau University of Science and Technology, 2017.

First Prize at the 14th China Postgraduate Mathematical Contest in Modeling, China Academic Degrees and Graduate Education Development Center and China Graduate Mathematical Contest in Modeling Committee, 2017.  
Second Prize at the 13th National Postgraduate Mathematic Contest in Modeling, China Academic Degrees and Graduate Education Development Center and China Graduate Mathematical Contest in Modeling Committee, 2016.  
Third Prize at the 12th National Postgraduate Mathematical Contest in Modeling, China Academic Degrees and Graduate Education Development Center and China Graduate Mathematical Contest in Modeling Committee, 2015.

### Academic Publication (selected)

Ben Ye, Xixi Yuan, Zhanchuan Cai and Ting Lan. "Severity Assessment of COVID-19 Based on Feature Extraction and V-Descriptors", IEEE Transactions on Industrial Informatics. DOI: 10.1109/TII.2021.3056386.  
Ben Ye, Zhanchuan Cai, Ting Lan and Wei Cao. "Modeling of Crater Group Representation Based on V-system", IEEE Transactions on Geoscience and Remote Sensing, DOI :10.1109/TGRS.2021.3105282.  
Ben Ye, Zhanchuan Cai, Ting Lan and Wei Cao. "A Novel Stitching Method for Dust and Rock Analysis Based on Yutu Rover Panoramic Imagery", IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, volume12, issue 11 pp. 4457-4466, DOI: 10.1109/JSTARS.2019.2947281  
Ben Ye, Zhanchuan Cai, Ting Lan and Youqing Xiao, "A Novel Shape Representation Method for Complex Trademark Image", IEEE Access, volume 7,issue 1,pp.53800-53811, doi:10.1109/ACCESS.2019.2912230.  
Ting Lan, Zhanchuan Cai, and Ben Ye, "Modeling of Lunar Digital Terrain Entropy and Terrain Entropy Distribution Model", IEEE Transactions on Geoscience and Remote Sensing, DOI: 10.1109/TGRS.2020.2999582.  
Wei Cao, Zhanchuan Cai, and Ben Ye, "Measuring Multiresolution Surface Roughness Using V-System", IEEE Transactions on Geoscience & Remote Sensing volume 56, issue 3 pp.1497-1506, DOI:10.1109/TGRS.2017.2764519.  
Wen-Liang Du, Xiao-Yi Li, Ben Ye and Xiao-Lin Tian, "A Fast Dense Feature-Matching Model for Cross-Track Pushbroom Satellite Imagery", Sensors, volume 18, issue 12, pp. 4182, DOI: <https://doi.org/10.3390/s18124182>.  
Junhao Lai, Ben Ye, Zhanchuan Cai, Chuguang Li, and Yu Jia. A New Approach for Orthogonal Representation of Lunar Contour Maps. International Conference on Image and Graphics, 8/2015, 198-205. DOI: 10.1007/978-3-319-21978-3\_18.  
Chuguang Li, Ben Ye, Junhao Lai, Yu Jia and Zhanchuan Cai. A digital watermarking algorithm for trademarks based on u system. International Conference on Image and Graphics, 8/2015, 43-52, DOI: 10.1007/978-3-319-21978-3\_5