

Assistant Professor LAN, TING

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Academic Qualification

Ph.D. in Computer Technology and Its Application, Macau University of Science and Technology
Master in Software Engineering, University of Macau

Teaching Area

Operating Systems Laboratory
Special Topics in Computer Sciences
Information Technology

Research Area

Image Processing and Computer Graphics
Intelligent Data Processing and Analysis
Deep Learning

Working Experience

2021 - Present, Assistant Professor, Faculty of Information Technology, Macau University of Science and Technology
2019 - 2021, Postdoctoral Fellow, Faculty of Information Technology, Macau University of Science and Technology

Academic Publications (Selected)

1. Ting Lan and Zhanchuan Cai, "A Novel Spline Algorithm Applied to COVID-19 Computed Tomography Image Reconstruction," IEEE Transactions on Industrial Informatics, vol. 18, no.11, pp. 7804-7813, 2022.
2. Ting Lan and Zhanchuan Cai, "A Novel Image Representation Method Under a Non-Standard Positional Numeral System," IEEE Transactions on Multimedia, vol. 23, pp. 1301-1315, 2021.
3. Ting Lan and Zhanchuan Cai, "Efficient Reconstruction of Industrial Images Using Optimized HMK Splines," IEEE Transactions on Industrial Informatics, vol. 17, no. 7, pp. 4657-4668, 2021.
4. 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, vol. 59, no. 2, pp. 1052-1066, 2021
5. Ting Lan and Zhanchuan Cai, "Lunar Brightness Temperature Map and TB Distribution Model," IEEE Transactions on Geoscience and Remote Sensing, vol. 56, no. 12, pp. 7310-7323, 2018.
6. Zhanchuan Cai and Ting Lan, "Lunar Brightness Temperature Model Based on the Microwave Radiometer Data of Chang'e-2," IEEE Transactions on Geoscience and Remote Sensing, vol. 55, no. 10, pp. 5944-5955, 2017.
7. Zhanchuan Cai, Ting Lan, and Caimu Zheng "Hierarchical MK Splines: Algorithm and Applications to Data Fitting," IEEE Transactions on Multimedia, vol. 19, no. 5, pp. 921-934, 2017.
8. 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, vol. 17, no. 11, pp. 7456-7467, 2021.
9. Qiuying Huang, Zhanchuan Cai, and Ting Lan, "A New Approach for Character Recognition of Multi-Style Vehicle License Plates," IEEE Transactions on Multimedia, vol. 23, pp. 3768-3777, 2020.

10. 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, vol. 60, Art. no. 4703512, 2021.
11. 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, vol. 12, no. 11, pp. 4457-4466, 2019.
12. Qiuying Huang, Zhanchuan Cai, and Ting Lan, "A Single Neural Network for Mixed Style License Plate Detection and Recognition," IEEE Access, vol. 9, pp. 21777-21785, 2021
13. Ben Ye, Zhanchuan Cai, Ting Lan, and Youqing Xiao, "A Novel Shape Representation Method for Complex Trademark Image," IEEE Access, vol. 7, pp. 53800-53811, 2019.

Patents

1. Zhanchuan Cai and Ting Lan, Method and System for Secure Encryption, US Patent, Patent No. 10985906 B2, 20 April 2021, and Australian Innovation Patent, Patent No. 2018100155, 5 February 2018.
2. Zhanchuan Cai and Ting Lan, Methods and Apparatus for Encrypting Multimedia Information, US Patent, Patent No. 10635786 B2, 28 April 2020, and Australian Innovation Patent, Patent No. 2017100438, 21 April 2017.
3. Zhanchuan Cai and Ting Lan, Methods and Apparatus for Image Construction, US Patent, Patent No. 10332279 B2, 25 June 2019, and Australian Innovation Patent, Patent No. 2017100337, 22 March 2017.
4. Zhanchuan Cai and Ting Lan, Method for Coding Data, US Patent, Patent No. 9755661 B1, 5 September 2017, and Australian Innovation Patent, Patent No. 2016101456, 16 August 2016.
5. 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, Patent No. 10062187 B1, 28 August 2018, and Australian Innovation Patent, Patent No. 2017100972, 17 July 2017.

Professional Certification and Awards

- Second Prize in the 2022 Higher Education (Graduate) National Teaching Achievement Award (Co-awarded)
- Third Prize in the 2018 Macau Science and Technology Awards-Technological Invention Award (Co-awarded)