

# Zhiyong Su

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## PARTICULARS

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### EDUCATION

Institute of Computing Technology, Chinese Academy of Sciences Ph. D. in Computer Science	2006-2009
Nanjing University of Science and Technology M. S. in Computer Science	2004-2006
Nanjing University of Science and Technology B. S. in Computer Science and Technology	2000-2004

### CURRENT STATUS

Associate Professor, School of Automation, Nanjing University of Science and Technology.

### RESEARCH INTERESTS

My research interests span computer graphics, computer vision, augmented reality, image processing and computer-aided design. In particular, my recent focus is on modeling, recognition and understanding for 3D scene.

## PUBLICATIONS

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### SELECTED JOURNAL PAPERS

1. **Zhiyong Su\***, Ying Ye, Qi Zhang, Weiqing Li, Yuewei Dai, "Robust 2D Engineering CAD Graphics Hashing for Joint Topology and Geometry Authentication via Covariance-Based Descriptors", **IEEE Transactions on Information Forensics and Security**, 2018.
2. Rui Wen\*, Weiqing Tang, **Zhiyong Su**, "Topology based 2D engineering drawing and 3D model matching for process plant", **Graphical Models**, vol. 92, pp. 1-15, 2017.
3. **Zhiyong Su\***, Lang Zhou, Yaobin Mao, Yuewei Dai, Weiqing Tang, "A Unified Framework for Authenticating Topology Integrity of 2D Heterogeneous Engineering CAD Drawings", **Multimedia Tools and Applications**, vol. 76, no. 20, pp. 20663-20689, 2017.
4. **Zhiyong Su\***, Xin Yang, Guangjie Liu, Weiqing Li, Weiqing Tang, "Topology Authentication for Piping Isometric Drawings", **Computer-Aided Design**, vol. 66, no. 9, pp. 33-44, 2015.
5. **Zhiyong Su**, Lang Zhou, Guangjie Liu, Jianshou Kong\*, Yuewei Dai, "Authenticating topological integrity of process plant models through digital watermarking", **Multimedia Tools and Applications**, vol. 73, no. 3, pp. 1687-1707, 2014.
6. **Zhiyong Su\***, Weiqing Li, Jianshou Kong, Yuewei Dai, Weiqing Tang, "Watermarking 3D CAPD models for topology verification", **Computer-Aided Design**, vol. 45, no. 7, pp. 1042-1052, 2013.
7. **Zhiyong Su\***, Lang Zhou, Weiqing Li, Yuewei Dai, Weiqing Tang, "Topology authentication for CAPD models based on Laplacian coordinates", **Computers & Graphics**, vol. 37, no. 4, pp. 1269-1279, 2013.

## OTHER JOURNAL PAPERS

8. Lang Zhou, **Su Zhiyong\***, Weiqing Tang "Topology Integrity Verification for 2D Engineering CAD Drawings", **Journal of Computer-Aided Design and Computer Graphics**, vol. 29, no. 5, pp. 895-905, 2017 (In Chinese).
9. Rui Wen\*, Tang Weiqing, **Su Zhiyong**, "Measuring 3D process plant model similarity based on topological relationship distribution", **Computer-Aided Design and Applications**, vol. 14, no. 4, pp. 422-435, 2017.
10. Wen Rui, Tang Weiqing, **Su Zhiyong**, "Edit distance based partial retrieval algorithm for large scale process plant models", to appear in **Computer Integrated Manufacturing Systems**, vol. 21, no. 12, pp. 3349-3355, 2015. (In Chinese).
11. Yafei Guo, Yichao Yao, Ying Lu, **Zhiyong Su\***, "Ship Stern Wave Reconstruction from Single Viewpoint Video", **Journal of System Simulation**, vol. 27, no. 10, pp. 2475-2482, 2015. (In Chinese).
12. Wen Rui, Tang Weiqing, **Su Zhiyong**, "Rule Mining and Intelligent Prediction in Process Plant Design", **Journal of Computer-Aided Design and Computer Graphics**, vol. 27, no. 5, pp. 930-939, 2015 (In Chinese).
13. Yang Yang, Chenghuan Xing, Ying Lan, Yichao Yao, **Zhiyong Su\***, "Research and Implementation of Cooperative Crane Simulation for Rocket Transport", **Journal of System Simulation**, vol. 25, no. 9, pp. 2258-2262, 2013. (In Chinese).
14. **Zhiyong Su\***, Weiqing Li, Yuewei Dai, Weiqing Tang, "Digital watermarking for 3D process plant models based on logistic chaotic system", **Journal of Computer-Aided Design and Computer Graphics**, vol. 23, no. 3, pp. 426-432, 2011 (In Chinese).
15. **Zhiyong Su\***, Weiqing Tang, Weiqing Li, Tao He, "Network-based interactive rendering of large-scale process plant models", **Journal of Computer-Aided Design and Computer Graphics**, vol. 22, no. 1, pp. 66-75, 2010 (In Chinese).
16. **Zhiyong Su\***, Ming Xia, Weiqing Li, Tao He, Weiqing Tang, "Feature-Based Simplification of Process Plant Models over Network", **The International Journal of Virtual Reality**, vol. 8, no. 2, pp. 51-58, 2009.
17. **Zhiyong Su\***, Weiqing Tang, Weiqing Li, Nianfeng Shi, Tao He, "Fast approach for constructing hierarchical levels of details of dynamic process plant model", **Journal of Computer-Aided Design and Computer Graphics**, vol. 20, no. 8, pp. 1038-1046, 2008 (In Chinese).
18. Weiqing Li, **Zhiyong Su**, Zhenglong Yang, Huizhong Wu, "Fast Algorithm for RCS of Complex Objects on GPU", **Journal of System Simulation**, vol. 18, no. 8, pp. 2214-2218, 2006 (In Chinese).

## RESEARCH PROJECTS

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- Modeling and Simulation Method for Augmented Reality, National 13th Five-Year Plan for pre-research, Project number: 41401010203, 2017-2019, Main Investigator.
  - Electronic Sand Table Technology Based on Holographic Image, National 13th Five-Year Plan for pre-research, Project number: 315050502, 2016-2018, Main Investigator.
  - Research on Digital Watermarking for Engineering CAD Drawings with Local Disproportional Transformations Local Disproportional Transformations, National Natural Science Foundation, Project number: 61300160, 2014-2016, Principal Investigator.

## SERVICE

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- Reviewer (Journals) - *IEEE Transaction on Multimedia*, *Computer-Aided Design*, *International Journal of Automation and Computing*, *International Journal of Distributed Sensor Networks*, *International Journal of Multimedia*, *Journal of Computational Methods in Sciences and Engineering*.