Wei YAN

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● Education

Sept 2010 – Feb 2014 **PhD in Computer Science**
- INSA de Strasbourg and Université de Strasbourg, France

Sept 2009 – Jul 2010 **PhD Study in Computer Application Technology**
- Xidian University, China
- Financed by China Scholarship Council to study abroad for doctorate in 2010

Sept 2006 – Jul 2009 **MSc in Computer Application Technology**
- Qufu Normal University, China

Sept 2002 – Jul 2006 **BEng in Computer Science and Technology**
- Qufu Normal University, China
- Recommended for postgraduate study without taking the entrance examinations in 2006

● Research Area

Knowledge Graph, Conceptualisation, Ontologies and Formal Models, Rule-based (Crisp, Fuzzy) Inference

● Employment

Jan 2021 – until now Associate Professor, School of Information Science and Engineering, Shandong Normal University, China

Sept 2019 – Sept 2020 Postdoctoral Researcher, Laboratory of Image Informatics and Information Systems(LIRIS), Universite de Claude Bernard Lyon 1, France

Mar 2014 – Dec 2020 Lecturer, School of Information Science and Engineering, Shandong Normal University, China

Feb 2012 – Jun 2012 Teacher, ECAM Strasbourg, France

● Publications

1. Peer-reviewed scientific journals

[1] J.H. Wang, **W. Yan*** and Chao Huang, Surface shape-based clustering for B-rep models, Multimedia Tools and Applications, 2020(79): 25747-25761.

[2] **W. Yan***, H. Liu, Y.S. Liu, J.H. Wang, C. Zanni-Merk and D. Cavallucci, X.D. Yan and L. Zhang, Latent semantic extraction and analysis for TRIZ-based inventive design. European Journal of Industrial Engineering, 2018, 12(5): 661-681.

[3] **W. Yan***, H. Liu, C. Zanni-Merk and D. Cavallucci, IngeniousTRIZ: An automatic ontology-based system for solving inventive problems. Knowledge-Based Systems, 2015, 75: 52-65.

[4] **W. Yan**, C. Zanni-Merk*, D. Cavallucci, and P. Collet, An ontology-based approach for inventive problem solving. Engineering Applications of Artificial Intelligence, 2014, 27: 175-190.

[5] **W. Yan**, C. Zanni-Merk*****, D. Cavallucci, and P. Collet, An ontology-based approach for using physical effects in inventive design. Engineering Applications of Artificial Intelligence, 2014, 32: 21-36.

[6] **W. Yan***, C. Zanni-Merk, F. Rousselot, D. Cavallucci, and P. Collet, Facilitating the resolution of inventive problems using semantic relatedness and ontology reasoning. International Journal of Knowledge-Based and Intelligent Engineering Systems (KES Journal), 2013, 17: 79-96.

[7] **W. Yan***, C. Zanni-Merk, F. Rousselot and D. Cavallucci, Ontology matching for facilitating inventive design based on semantic similarity and case-based reasoning. International Journal of Knowledge-Based and Intelligent Engineering Systems (KES Journal), 2013, 17: 243-256.

[8] **W. Yan***, F. Rousselot and C. Zanni-Merk, Component retrieval based on ontology and graph patterns matching. Journal of Information and Computational Science, 2010, 7(4): 893-900.

[9] C. Zanni-Merk*****, F. De Bertrand De Beuvron, F. Rousselot and **W. Yan**, A formal ontology for a generalized inventive design methodology. Journal of Applied Ontology, 2013, 8(4): 231-273.

[10] L.Zhang, M.Fu*****, Y.Zhang, **W.Yan** and M.Wang, Investigation of CMOS pixel sensor with 0.18 μm CMOS technology for high-precision tracking detector. Journal of Instrumentation, 2017,12(1): C01011.

2. Peer-reviewed conference proceedings

[1] **W. Yan***, C. Zanni-Merk, F. Rousselot, D. Cavallucci and P. Collet, Ontology-based knowledge modeling for using physical effects. TRIZ Future 2013, October 29-31, Paris, France, 2013.

[2] **W. Yan***, C. Zanni-Merk, F. Rousselot, D. Cavallucci and P. Collet, A new method of using physical effects in su-field analysis based on ontology reasoning. 17th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES2013), September 9-11, Kitakyushu, Japan, 2013.

[3] **W. Yan***, C. Zanni-Merk, F. Rousselot, D. Cavallucci and P. Collet, A heuristic method of using the pointers to physical effects in su-field analysis. TRIZ Future 2012, October 24-26, Lisbon, Portugal, 2012.

[4] **W. Yan***, C. Zanni-Merk, F. Rousselot, D. Cavallucci and P. Collet, A heuristic TRIZ problem solving approach based on semantic relatedness and ontology reasoning. 16th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES2012), September 10-12, San Sebastian, Spain, 2012.

[5] **W. Yan***, C. Zanni-Merk, F. Rousselot and D. Cavallucci, A method of facilitating inventive design based on semantic similarity and case-based reasoning. TRIZ Future 2011, November 2-4, Dublin, Ireland, 2011.

[6] **W. Yan***, C. Zanni-Merk and F. Rousselot, An application of semantic distance between short texts to inventive design. International Conference on Knowledge Engineering and Ontology Development (KEOD2011), October 26-29, Paris, France, 2011.

[7] **W. Yan***, C. Zanni-Merk and F. Rousselot, Matching of different abstraction level knowledge sources: The case of inventive design. 15th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES2011), September 12-14, Part IV, LNAI 6884, 445-454, Kaiserslautern, Germany, 2011.

[8] **W. Yan***, C. Zanni-Merk and F. Rousselot, Skyline adaptive fuzzy query. 15th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES2011), September 12-14, Part II, LNAI 6882, 345-354, Kaiserslautern, Germany, 2011.

[9] A. Bultey*****, C. Zanni-Merk, **W. Yan**, A proposal of a systematic and consistent substance-field analysis. TRIZ Future 2013, October 29-31, Paris, France, 2013.

[10] **W. Yan***, Z.J. Liu, Y.F. Wang, D.H. Chen, Z.H. Wang, High-dimensional approximate nearest neighbor query based on fuzzy control and genetic algorithm, 2nd International Workshop on Education Technology and Computer Science, March 6-7, Wuhan, China, 2010.

[11] Y.F. Wang*, Z.J. Liu, **W. Yan**, Algorithms for random adjacency matrixes generation used for scheduling algorithms test. International Conference on Machine Vision and Human-machine Interface (MVHI2010), April 24-25, Kaifeng, China, 2010.

● Projects

1. Hosted

[1] Project "Research on three dimensional building data fusion of BIM and GIS based on dynamic multi-strategy semantic matching and rule-based reasoning" funded by National Natural Science Foundation of China, Jan.2021-Dec.2023.

[2] Project "Research on model inference and association algorithm of TRIZ heterogeneous knowledge for supporting rapid product innovative design" funded by Natural Science Foundation of Shandong Province, China, Mar.2018-Jun.2020.

[3] Project "Research on model and inference of TRIZ heterogeneous knowledge in product innovative design" funded by the Scientific Research Foundation for the Returned Overseas Chinese Scholars, State Education Ministry, Jan.2016–Jun.2018.

[4] Project "Research on ontology-driven rapid product innovative design" funded by State Key Laboratory of CAD&CG, Zhejiang University, China, Jan.2016–Dec.2016.

[5] Project "Research on model inference and association algorithm of TRIZ heterogeneous knowledge for supporting product innovative design" funded by Education Department of Shandong, China, Jul.2015–Dec.2017.

[6] Financed by China Scholarship Council to study for doctorate in Université de Strasbourg, France, Sept.2010–Feb.2014.

2. Participated

[1] Project "Mathematical model theory and method for Big-Data-Based intelligent analysis for energy efficiency of public buildings" funded by Major Basic Research Program of Natural Science Foundation of Shandong Province, China, Jun.2018-Dec.2020.

[2] Project "Research on extraction and expression of knowledge based on behavior data" funded by National Natural Science Foundation of China, Jan.2016-Dec.2018.

[3] Project "Research on ontology-driven function recognition of 3D models" funded by Natural Science Foundation of Shandong Province, China, Dec.2014-Dec.2017.

● Teaching and Supervising Experience

1. Mar 2014 until now — Shandong Normal University, China
   Courses: Java Programming, Compilers: Principles, Techniques and Tools, Freshman Seminars, Spoken English, Information systems theory and practice
2. Mar 2014 until now — Shandong Normal University, China
   Supervised 31 undergraduate theses in Computer Science
3. Feb 2012 – Jun 2012 — ECAM Strasbourg, France Course: Java Programming

● Service

1. CCF YOCSEF Jinan Committee member.
2. Reviewer for the journals: Mathematical Problems in Engineering, Knowledge-Based Systems, European Journal of Industrial Engineering.
3. Assist to organize the 4th IFIP Working Conference on Computer Aided Innovation (WCCAI 2011) in Strasbourg, 2011.