

# Resume

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## Education:

Jan. 2016 Ph. D. degree in Computer Science, Conservatoire National des Arts et Metiers, Paris, France  
June 2011 Ph. D. degree in Mechanical Engineering, Xidian University, Xi'an, China  
June 2006 B. S. degree in Electrical Engineering and Its Automation, Xidian University, Xi'an, China

## Research interests:

Discrete event systems; Petri nets; Automata; Modelling and control of automated manufacturing systems

## Experience:

July 2020 – Present Associated Professor at the Institute of Systems Engineering, Macau University of Science and Technology, Macau  
Sep. 2016 – June 2020 Assistant Professor at the Institute of Systems Engineering, Macau University of Science and Technology, Macau  
July 2013 – Aug. 2016 Associated Professor, Xidian University, China  
July 2011 – June 2013 Lecture, Xidian University, China

## Affiliations:

[1] Senior Member of IEEE

## Honors and Awards:

[1] 2020 BOC (Bank of China) Excellent Research Award;  
[2] The 2018 Science and Technology Award of Macau-The Third Prize of Natural Science Award;

## Professional activities and services:

[1] Session Chair of the 2010 IEEE International Conference on Mechatronics and Automation – Manufacturing Automation Technology;  
[2] Program committees of the 7th International Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2013), Florence, Italy November 21-22, 2013; the 3rd International Workshop on Process-Aware Logistics Systems, Beijing, China, August 26th, 2013; and the 8th International Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2014), Bejaia, Algeria, September 29-30, 2014.;

- [3] Co-Chair of Scheduling and Optimization Session in 2016 *IEEE International Conference on Automation Science and Engineering*;
- [4] A frequent reviewer for a number of international journals, such as *Automatica*, *IEEE Transactions on Automation Science and Engineering*, *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, *IEEE Transactions on Automatic Control*, *ACM Transactions on Embedded Computing Systems*, and *Asian Journal of Control*.

**Project (as PI):**

- [1] “Optimal and Dynamic Control of Discrete Event Systems Modeled with Petri Nets,” the Science and Technology Development Fund, Aug. 2017 – Aug. 2020

**Publications:**

*Monograph:*

- [1] Yufeng Chen and Zhiwu Li, *Optimal Supervisory Control of Automated Manufacturing Systems*, New York: CRC Press, Taylor & Francis Group, 2013.

*Selected journal articles:*

- [1] Oussama Karoui, **Yufeng Chen**, Zhiwu Li, Naiqi Wu, and Mohamed Khalgui, “On Hierarchical Construction of the State Space of an Automated Manufacturing System Modeled with Petri Nets,” *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 50, no. 10, pp. 3613-3627, 2020.
- [2] Yuting Li, Li Yin, Yufeng Chen, Zhenhua Yu, and Naiqi Wu, “Optimal Petri Net Supervisor Synthesis for Forbidden State Problems Using Marking Mask,” *Information Sciences*, vol. 505, pp. 183-197, 2019.
- [3] **Yufeng Chen**, Zhiwu Li, Kamel Barkaoui, Naiqi Wu, and Mengchu Zhou, “Compact Supervisory Control of Discrete Event Systems by Petri Nets with Data Inhibitor Arcs” *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 47, no. 2, pp. 364–379, 2017. (*Highly Cited Paper in Essential Science Indicators*)
- [4] **Yufeng Chen**, Zhiwu Li, Abdulrahman Al-Ahmari, Naiqi Wu, and Ting Qu, “Deadlock Recovery for Flexible Manufacturing Systems Modeled with Petri Nets,” *Information Sciences*, vol. 381, pp. 290–303, 2017. (*Highly Cited Paper in Essential Science Indicators*)
- [5] **Yufeng Chen**, Zhiwu Li, Kamel Barkaoui, and Murat Uzam, “Monitor Design with Multiple Self-loops for Maximally Permissive Supervisors,” *ISA Transactions*, vol. 61, pp. 129–140, 2016.
- [6] **Yufeng Chen**, Zhiwu Li, Kamel Barkaoui, and Alessandro Giua, “On the enforcement of a class of nonlinear constraints on Petri nets,” *Automatica*, vol. 55, no. 5, pp. 116–124, 2015. (*Highly Cited Paper in Essential Science Indicators*)
- [7] **Yufeng Chen**, Zhiwu Li, Kamel Barkaoui, and Murat Uzam, “New Petri net structure and its application to optimal supervisory control: Interval inhibitor arcs,” *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 44, no. 10, pp. 1384–1400, 2014. (*Highly Cited Paper in Essential Science Indicators*)
- [8] **Yufeng Chen**, Zhiwu Li, and Kamel Barkaoui, “Maximally permissive liveness-enforcing supervisor with lowest implementation cost for flexible manufacturing systems,” *Information Sciences*, vol. 256, pp. 74–90, 2014.
- [9] **Yufeng Chen**, Zhiwu Li, and Mengchu Zhou, “Optimal supervisory control of flexible manufacturing systems by Petri nets: A set classification approach,” *IEEE Transactions on Automation Science and Engineering*, vol. 11, no. 2, pp. 549–563, 2014. (*Highly Cited Paper in Essential Science Indicators*)

- [10] **Yufeng Chen**, Zhiwu Li, and Abdulrahman Al-Ahmari, “Nonpure Petri net supervisors for optimal deadlock control of flexible manufacturing systems,” *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 43, no. 2, pp. 252–265, 2013.
- [11] **Yufeng Chen** and Zhiwu Li, “On structural minimality of optimal supervisors for flexible manufacturing systems,” *Automatica*, vol. 48, no. 10, pp. 2647-2656, 2012.
- [12] **Yufeng Chen**, Zhiwu Li, and Mengchu Zhou, “Behaviorally optimal and structurally simple liveness-enforcing supervisors of flexible manufacturing systems,” *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans*, vol. 42, no. 3, pp. 615–629, 2012.
- [13] **Yufeng Chen**, Zhiwu Li, Mohamed Khalgui, and Olfa Mosbahi, “Design of a maximally permissive liveness-enforcing Petri net supervisor for flexible manufacturing systems,” *IEEE Transactions on Automation Science and Engineering*, vol. 8, no. 2, pp. 374–393, 2011. (*Highly Cited Paper in Essential Science Indicators*)
- [14] **Yufeng Chen** and Zhiwu Li, “Design of a maximally permissive liveness-enforcing supervisor with a compressed supervisory structure for flexible manufacturing systems,” *Automatica*, vol. 47, no. 5, pp. 1028–1034, 2011. (*Highly Cited Paper in Essential Science Indicators*)
- [15] Chunfu Zhong, Zhiwu Li, **Yufeng Chen**, and Abdulrahman Al-Ahmari, “On nonexistence of a maximally permissive liveness-enforcing pure net supervisor,” *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 43, no. 1, pp. 29–37, 2013.