

Dr. Yaoyu Li

Dr. Li is currently an Assistant Professor in the Department of Mechanical Engineering at University of Wisconsin – Milwaukee. He received his Ph.D. degree in Mechanical Engineering from Purdue University in 2004, his M. Sc. degree from University of Saskatchewan in Canada in 1997 and his B. Sc. degree from Tsinghua University in China in 1992. He is a member of ASME and IEEE. He is currently the Co-Chair of the Industrial Process Control Panel of ASME Dynamic Systems and Controls Division.

Dr. Li's research area is in mechatronics, controls and diagnosis/prognosis for electromechanical systems. His research interests are data-driven model based control, wireless process control, system modeling and identification for control, diagnosis and prognosis, robotics, extremum seeking control. His current research projects include

- 1) Data-driven adaptive surge map modeling, surge detection and surge avoidance control for centrifugal compressors (IMS research)
- 2) Battery-power saving wireless HVAC control using variable threshold sampling
- 3) System identification using orthogonal basis functions with the applications to boring tool degradation evaluation (IMS research)
- 4) Teleoperation and visual servoing of underwater robotic vision systems
- 5) Extremum seeking control with constraints for efficiency operation for energy systems
- 6) Grey box modeling of wind power systems for diagnosis and prognosis (IMS research)