

HAI QIU

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RESEARCH INTEREST	
	Intelligent Diagnostics and Prognostics Technologies, Digital Signal Processing, Condition Monitoring Technology, automatic Balancing, Vibration and Model Analysis
EDUCATION	
	Sep. 1995–Dec. 1999 Ph. D, Mechanical Engineering, Institute of Diagnostics and Cybernetics Xi'an Jiaotong University
	Sep. 1991–July. 1995 BS., Mechanical Engineering, Department of Mechanical Engineering Xi'an Jiaotong University
EXPERIENCE	
	Jan 2003–Now <i>Lead Researcher</i> NSF Center for IMS Milwaukee, WI <ul style="list-style-type: none">▪ Lead the center's research activities▪ Initialize and manage contract and project with IMS member companies.▪ Lead the IMS Device to Business™ team to design and implement web based remote monitoring platform.▪ Coordinate with IMS researcher to deliver research results.
	April 2001–Dec. 2002 <i>Visiting Researcher</i> UTRC <ul style="list-style-type: none">▪ Design and implement feature extraction package for OTIS elevator REM-SC diagnostics module▪ Research a hybrid approach that mixes the expert knowledge with the information technology to extract features from elevator controller and sensor signals.▪ Design state machines for elevator diagnostics logics▪ Develop REM Data Post-Processing tool for mechanics and supervisors to improve field efficiency.
	Feb 2001–Dec. 2002 <i>Postdoctoral Researcher</i> Center for IMS <ul style="list-style-type: none">▪ Lead the planning and construction of IMS industrial testbeds.▪ Develop prognostic algorithms for machinery.▪ Assist project planning and technical feasibility study.
	Dec. 1999-Feb. 2001 <i>Postdoctoral Researcher</i> Tongji University <ul style="list-style-type: none">▪ Lead the cooperative project of assemble quality analysis and diagnosis for

	<p>Volkswagen Shanghai company</p> <ul style="list-style-type: none"> ▪ Develop diagnostic methods for large Rotating machinery ▪ Develop a high efficient field balancing technique for large rotating machinery
<p>PUBLICATIONS</p>	
	<p>Guofeng Tong, Jay Lee, Hai Qiu, Performance Assessment and Prognostics of a Hybrid System using a Particle Filter approach, submitted to IEEE Transaction on Automation Science and Engineering.</p> <p>Guangrui Wen, Hai Qiu, Liangsheng Qu, Jay Lee “Predictability Assessment of Machine Performance using an Integrated Signal Redundancy and Bootstrap”, Submitted to IEEE/ASME transactions on Mechatronics.</p> <p>D. Djurdjanovic, Jun Ni, Jihong Yan, Hai Qiu, Jay Lee, Web-enabled Remote Spindle Monitoring and Prognostics, The First Machine Tool Conference: The Dominance of Spindle Performance, Dearborn, Michigan, May 28-29, 2003</p> <p>Hai Qiu, Haijun Zhang, Liangsheng Qu. “The Application of Genetic Algorithm in Flexible Rotor Balancing” China Mechanical Engineering, Vol13, No.5, 2002</p> <p>Hai Qiu, Liangsheng Qu, Haijun Zhang “Some Key Problems of the Application of Neural network in Dynamic Balancing”, Journal of China Mechanical Engineering Vol. 36, No. 1, 2001, No.1</p> <p>Hai Qiu, Liangsheng Qu. “A Genetic Algorithm Based Balancing Framework For Flexible Rotors”, The ASME DETC99, Vibration Conference For Rotating Machinery and Structures, paper No. DETC99/VIB-8264</p> <p>Hai Qiu, Liangsheng Qu. “Problems of the Correlative Balance Planes in the Dynamic Balance of Rotor”, Chemical Engineering & Machinery, Vol.26, No.2, 1999</p> <p>Liangsheng Qu, Hai Qiu. “Rotor Balancing Based on Hologram Analysis: Principle and Practice”, China Mechanical Engineering, Vol. 9, No.1, 1998.</p> <p>Hai Qiu, Liangsheng Qu. “Hologram Decomposition in Field Balancing”, China Mechanical Engineering, Vol. 9, No.3, 1998. SR Board of Directors, running, gardening, carpentry, computers.</p>
<p>CURRENT PROJECT</p>	
	<p>Maintenance free door</p> <p>Harly-Davison remote monitoring of CNC machine tools</p> <p>Rexnord Roller Bearing prognostic testbed</p>