

Dr. YuGuo Sun

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OBJECTIVE

Postdoctoral Research Associate in MEMS Dynamic/Wireless Sensor /Numerical Calculation.

HIGHLIGHTS OF QUALIFICATIONS

- 6 years experience in vibration measurement and dynamic analysis.
- 3 years experience in numerical calculation C language programming.
- 3 years experience in MEMS-based wireless sensor and signal processing.

SKILLS SUMMARY

Vibration Modeling & Analysis

- Numerical solution of ordinary differential equations (ODEs).
- FEM software ANSYS.
- Simulation software MATLAB.

Computer programming

- Numerical solution C language programming.
- Digital Image Processing & FFT Visual C++ 6.0 programming.

Electronic Design

- Micro-controller unit (MCU) application.
- Wireless Sensor Network (WSN) design.
- DC & Stepping motor remote control.

EMPLOYMENT EXPERIENCE

Jan 2004; Present [*School of Optical & Electronic Engineering, University of Shanghai for Science & Technology*](#)

Associate Professor

- Patent Right: A dual-axis wireless tilt sensor.
- Software Copyright:
 - Object pitching angular wireless measurement software.
 - RF MEMS switch nonlinear vibration calculation software.
- Shanghai Education Committee Found ; A MEMS-based solar cell powered wireless vibration sensor ; (Project Leader).
- USST Doctoral Found ; A Web-based vibration monitoring system; .
- Vibration and Shock State Key Lab Found ; FPGA Application in Embedded Mechanical Fault Diagnosis System; (Project Leader).

Dec 2001; Dec 2003 [*Institute of Avanced Manufacturing Research ,Tongji University*](#)
Postdoctoral Research Associate

- China Postdoctoral Science Found ; Tolerance information extraction of a automobile engine CAPP system; (Project Leader).
- Mechanical CAD Pro/E software development.

TEACHING EXPERIENCE

[School of Optical & Electronic Engineering, University of Shanghai for Science & Technology](#)

Associate Professor

- Dynamic Analysis of MEMS.
- Sensor Technology.
- Numerical methods for engineering.

EDUCATION

- Sep 1998-Dec 2001 [Institute of Noise and Vibration Research, Shandong University](#)
- Ph.D. in Mechanical Engineering
 - Specialty: Numerical calculation of a submarine's vibration.
 - Shandong province Science & Tech progress award. ;Power flow method for submarine vibration energy transmission; .
- Sep 1995-Aug 1998 [Shandong University](#)
- M.S. in Engineering Mechanics
 - Specialty: Vibration measurement of a submarine model.
- Sep 1991-Aug 1995 [Shandong University](#)
- B.S. Mechanical Engineering
 - Specialty: Mechanism CAD Design

SELCTED PUBLICATION

- **Sun Y.G.** and Song K.J. ; Dynamic analysis of an active flexible suspension system; . *Journal of Sound and Vibration*. 2002, 249 (3): 606-610
- **Sun Y.G.** and Song K.J. ; On natural characteristics of a rigid motor flexible base dynamic coupled system; . *Chinese Journal of Mechanical Engineering (English Edition)*, v 17, n 2, June, 2004, p 219-221
- **Sun Y.G.** and Song K.J. ; LQR control of power flow transmission for a motor-foundation dynamic coupled system; . *Zhendong yu Chongji/Journal of Vibration and Shock*, v 26, n 1, January, 2007, p 117-120
- Li X.D., Song K.J., **Sun Y.G.** ; Study on transferring characteristics of power flow through raft by complex excitations; . *Yingyong Lixue Xuebao/Chinese Journal of Applied Mechanics*, v 20, n 2, June, 2003, p 32
- Mao Y.H., Song K.J., **Sun Y.G.** ; Power flow analysis for the finite continuous isolation system ; . *Chinese Journal of Mechanical Engineering (English Edition)*, v 14, n 3, September, 2001, p 215-218
- Liu H.J. and **Sun Y.G.** ; Static and dynamic analysis of protective closure based on FEM; . *Zhendong Ceshi Yu Zhenduan/Journal of Vibration, Measurement and Diagnosis*, v 23, n 4, December, 2003, p 271
- **Sun Y.G.** ; On tolerance information extraction of feature model in automotive engine capp system; . *DETC2005: 31st Design Automation Conference*, 2005, p 599-602
- **Sun Y.G.** and Chen J. ; Embedded fault logic implementation based on Complex Programmable Logic Device; . *DETC2005: 20th Biennial Conf. on Mechanical Vibration and Noise*, 2005, p 623-626
- **Sun Y.G.** and Zhu L.K. ; Experiment on wireless sensor vibration energy collection ; . *IET Conference Publications*, n 524, *International Technology and Innovation Conference 2006, ITIC 2006*, 2006, p 2209-2211