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## Chen Guijuan

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**DEGREE:** MSc of Oil and Gas Field Surface Engineering

**DATE OF BIRTH:** Dec. 14<sup>th</sup>, 1981

**NATIONALITY:** Chinese



### **PROFESSION**

- Sep. 2010~Now  
Metallic Material Engineering  
School of Mechanical Science and Engineering, Northeast Petroleum University, P. R. China  
Duty: Lecturer
- Apr. 2008~ Aug. 2010
- Metallic Material Engineering  
School of Mechanical Science and Engineering, Northeast Petroleum University, P. R. China  
Duty: Assistant teacher

### **EDUCATION**

- Sep. 2014~ Now  
PHD of Petroleum and Petrochemical Equipment Detecting Safety Assessment  
Thesis Title: Mechanical Performance Analysis and Remaining Life Estimation of Key Components in Double Horse Head Pumping Unit.  
School of Mechanical Science and Engineering, Northeast Petroleum University, P. R. China  
Advisor: Professor. Zou Longqing
- Sep. 2005~ Apr. 2008  
MSc of Oil and Gas Field Surface Engineering  
Thesis Title: Research On Derrick Damage Identification Technique Based On Mode Parameter and SVM  
School of Mechanical Science and Engineering, Northeast Petroleum University, P. R. China  
Advisor: Professor. Zou Longqing
- Sep. 2001~ Jul. 2005  
BSc of Metallic Material Engineering,  
School of Mechanical Science and Engineering, Northeast Petroleum University, P. R. China

### **RESEARCH INTERESTS**

-Machinery fault diagnosis and condition monitoring

- Multibody dynamics analysis of mechanical equipment
- Petroleum and Petrochemical Equipment Detecting Safety Assessment

## **LIST OF PUBLICATIONS**

### **Patents (in China):**

1. (Patent of Utility Model) No. ZL201220177037.8: A double-acting stratification oil pump, 2012
2. (Patent of Utility Model) No. ZL201220346199.X: A extraction device of compressor-cylinder pressure, 2013
3. (Patent of Utility Model) No. ZL201120243792.7: A load reducing sucker rod, 2012

### **Technical Papers:**

1. Chen Gui-juan, Zou Long-qing, Zhao Hai-yang, Li Yu-qian, An improved local mean decomposition method and its application for fault diagnosis of reciprocating Compressor, Journal of Vibroengineering, Vol.18,No.3, 2016, (**SCI Index**)
2. Zou Long-qing, Chen Gui-juan, Zhang Xu, Zhao Hai-yang, A Parameter Optimization Multibody Dynamics Simulation Method for Crank Torque of Double Horse Head Pumping Unit, Journal of Vibroengineering, (**under review**)
3. Zou Long-Qing, Chen Gui-Juan, Xing Jun-Jie, Jiang Chu-Hao, Fault Diagnosis Method Based on LMD Sample Entropy and SVM for Reciprocating Compressors, Noise and Vibration Control Vol.34, No.6, 2014,
4. Chen Gui-Juan, Zou Long-Qing, Jia Chun-Yu, Fu Hai-Long, Fault Diagnosis Technique for Reciprocating Compressor Based on Lmd Method of Cubic Hermite Interpolation, Compressor Technology, Vol.32, No.4, 2014
5. Chen Gui-Juan, Jia Chun-Yu, Zou Long-Qing, Fu Hai-Long, Study on CO<sup>2</sup> Corrosion Recognition Method Based on SVM, Chemical Machinery, Vol.41, No.6, 2014
6. Chen Gui-Juan, Gao Tong, Zou Long-Qing, Fu Hai-Long, Study on Fault Feature Extraction Method Based on ITD and Permutation Entropy for Reciprocating Compressor, Compressor Technology, Vol.32, No.5, 2014
7. Chen Gui-Juan, Wang Jin-Dong, Liu Yao-Fang, Zhao Hai-Yang, Intelligent Fault Diagnosis Technique Based on Multifractal and Singularity Value Decomposition for Reciprocating Compressor, Compressor Technology, Vol.31, No.3, 2013
8. Zou Long-Qing, Chen Gui-Juan, Two-step Structure Damage Identification Approach of Oil Derrick Structure, Science Technology and Engineering, Vol.10, No.18, 2010
9. Zou Long-Qing, Chen Gui-Juan, The Damage Identification Technique of Oil Derrick Based on Support Vector Machine and Dynamic Flexibility Matrix, Science Technology and Engineering, Vol.10, No.26, 2010

### **Research Projects:**

1. Research on Feature Extraction Method for Indicator Diagram of Reciprocating Compressor Without Key-phase and Pressure Signal, National Natural Science Foundation of China (51505079), 2016~2019
2. Research on vibration mechanism and feature extraction methods of bearing clearance fault for reciprocating compressor, General Financial Grant from the China Postdoctoral Science Foundation (2015M581423), 2016~2018
3. Research on Bearing Clearance Fault State Diagnosis and Assessment for Reciprocating Compressor, Natural Science Foundation of Heilongjiang Province in China (E2016009), 2016~2019
4. Feature extraction based on LMD and MSE and Its Application for Fault Diagnosis of Reciprocating Compressor, School Cultivate Foundation Project of NEPU in China (XN2014021), 2014~2016