

# International Journal of Materials, Mechanics and Manufacturing

## CONTENTS

---

---

### Volume 5, Number 3, August 2017

#### • Mechanical Design-Manufacture and Automation

A Robust One-Class Support Vector Machine Using Gaussian-Based Penalty Factor and Its Application to Fault Detection.....146

*T. Prayoonpitak and S. Wongsu*

Optimization of Plasma Spray Process VIA Orthogonal Test Design Method, SVM, and Improved PSO.....153

*Jing Xue and Min Huang*

Study on Effect of Process Parameters on End Wear of Tool Electrode during Planetary EDM of Ti-6Al-4V  
.....159

*Vishal J. Mathai, Harshit K. Dave, and Keyur P. Desai*

A Failure Analysis of Air Heat Exchanger Based on Modal Calculation and Thermal-Structural Interaction  
Simulation.....164

*Q. Miao, Z. Wang, and L. Wang*

EEG Waves for Robotics and Prosthesis Grasping and Motorization.....169

*Ebrahim A. Mattar*

Intelligent Technology Support Chinese High-End Equipment Manufacturing Upgrades and Development  
.....173

*Yong Tao*

Application of Radial Tool Movement in Electrical Discharge Machining Process for Boring Operation.....178

*Sudhanshu Kumar, Harshit K. Dave, and Keyur P. Desai*

For Supplier Evaluation Process through Fuzzy PROMETHEE Method.....183

*Rahmi Baki*

Variational Iteration Method for Transverse Vibrations of the Elastic, Tensioned Beam.....187

*D. Dönmez Demir and E. Koca*

#### • Power Machinery and Equipment

Thermal Study for Power Upgrading of 400 MW Generator Using Numerical Simulation.....191

*Hilman Syaeful Alam, Imam Djunaedi, and Demi Soetraprawata*

Reduction of Maximum Torque of Driving Shafts Concurrently Driven by Rubber V-belt for Monorail  
Traveling on Worn Rack Rail for Construction Uses.....196

*Kohei Nagao, Kazuya Okubo, Toru Fujii, and Shoji Uchida*

Comparison of 4-Pole with 225 Coil-Turns and 6-Pole with 150 Coil-Turns Multi-pole Inner Coil Rotary MR  
Brake Designs.....200

*Ozgur Baser and Mehmet Alper Demiray*

Dynamic Analysis of Shaft System of Micro Bubble Generating Pump.....	205
<i>Hilman Syaeful Alam, Bahrudin, and Anto Tri Sugiarto</i>	
Active Magnetic Bearing as a Force Measurement System.....	209
<i>Prince Owusu-Ansah, Hu Yefa, and Rhoda Afriyie Mensah</i>	
<b>• Mechatronics Engineering</b>	
Borehole Integrity of Austenitized and Annealed Pipe Steels Suitable for Carbon Capture and Storage (CCS) .....	213
<i>Anja Pfennig and Axel Kranzmann</i>	

# **Mechanical Design-Manufacture and Automation**

