

# Table of Contents

**Volume 5    Number 1**

**February 2017**

**Reliability Research Reviewed of Automobile Seat Angle-Adjuster**

L. Liu.....1

**A New Methodology for Reducing Yaw Rate Estimation Error**

W. Zhan.....12

**A Novel Splash Plate Design for Serial Reuse Raceways**

M. E. Barnes, E. Krebs, P. A. Nero, K. Torgerson, D. V. Johnson.....21

**Analytical Identification of Magnetic Faults Induced by Material Properties and Mechanical Tolerance in PM Synchronous Motor**

Y. Q. Yu, Q. Jiang, N. L. H. Aung.....27

**Dynamic Analysis of the Turnout Diverging Track for HSR with Variable Curvature Sections**

W. Koc, K. Palikowska.....42

**Temperature and Flow Rate Control of Diffusing Chamber**

Y. B. Lai, G. P. Lu, Z. W. Wang.....58

**Experimental Investigation of Laser Welding Process in Butt-Joint Configurations**

L. Jacques, A. El Ouafi.....77

**Medical Image Segmentation of Improved Genetic Algorithm Research Based on Dictionary Learning**

X. Q. Cao, J. Q. Miao, Y. Xiao.....90

**Analysis of High-Power Diode Laser Heating Effects on HY-80 Steel for Laser Assisted Friction Stir Welding Applications**

M. Wiechec, B. Baker, T. McNelley, M. Matthews, A. Rubenchik, M. Rotter, R. Beach, S. Wu.....97

**Minimum Curve Radii for High-Speed Trains, Including the Gyroscopic Moments of the Wheels**

R. L. Huston.....113

**Investigation of Performance and Combustion Characteristics of DI Diesel Engine Fuelled with Ternary Fuel Blend at Different Injection Pressure**

P. Sharanappa, M. C. Navindgi.....125

**Natural Gas Flaring—Alternative Solutions**

A. G. Aregbe.....139

**Applicability Evaluation of a Laser Light-Mater Interaction Based Computational  
Tool on Status Identification of Applied Micro-Structured Coatings**

M. Z. Pacheco, D. Vriesman, H. Brüning, K. Brune, W. L. Cavalcanti, B. Mayer.....154