

# International Journal of Modeling and Optimization

## CONTENTS

---

---

### Volume 9, Number 6, December 2019

#### • System Modeling and Calculation

- A Simple Model for Quantitative Prediction of Future Climate Change ..... 298  
*Heming Huang, Xinqiang Li, Xiaoyu Tian, and Andrew Zhang*

- Estimation of Mature Water Flooding Performance and Optimization by Using Capacitance Resistive Model and Fractional Flow Model by Layer ..... 303  
*Francisco Castillo Gamarra, Néstor Ramos, and Ignacio Borsani*

#### • Control System and Technology

- Nonlinear Model for Micro-launcher Attitude Control ..... 310  
*Teodor-Viorel Chelaru*

- Flight Envelope Expansion via Piezoelectric Actuation Receptance Method and Time-Delayed Feedback Control ..... 317  
*Daniela Enciu, Ioan Ursu, George Tecuceanu, Dragos Daniel Ion Guta, Andrei Halanay, and Mihai Tudose*

#### • Biomedical Engineering

- Biokinematic Control Strategy for Rehabilitation Exoskeleton Based on User Intention ..... 322  
*Jinan Charafeddine, Sylvain Chevallier, Samer Alfayad, Mohamad Khalil, and Dider Pradon*

- Development of Compact and Lightweight Stand-up Powered Wheelchair — Fall Risk Analysis When at Rest and Decelerating ..... 329  
*Tomozumi Ikeda, Toshitake Araie, Akira Kakimoto, and Koji Takahashi*

- Analysis of Plantar Pressure and Contact Forces Changes in Locomotion of People with Low Vision ..... 334  
*Mihaela I. Baritz*

#### • Mechanical Engineering

- Evaluation of Fatigue Reduction during Crop Harvesting Using a Power Assist Suit ..... 340  
*Toshitake Araie, Ikeda Tomozumi, Akira Kakimoto, and Shigeki Toyama*

- Discrete Model for the Movement of Industrial Manipulator Used in Hot Rolling Process ..... 344  
*Iulia Clitan, Vlad Muresan, Mihail Abrudean, and Valentin I. Sita*

- Deep-Sea Drone with Spherical Ultrasonic Motors ..... 348  
*Shigeki Toyama and Uichi Nishizawa*

#### • Robot structure Design and Optimization

- Design and Implement a 6DOF Anthropomorphic Robotic Structure ..... 352  
*Ovidiu Stan and Andrei Manea*

Optimization of a Robot Used for a Solid Waste Selection System..... 357  
*Catalin Boanta and Cornel Brisan*