

## Editorial

# New Contribution to the Advancement of Fixed Point Theory, Equilibrium Problems, and Optimization Problems

**Wei-Shih Du,<sup>1</sup> Erdal Karapınar,<sup>2</sup> Lai-Jiu Lin,<sup>3</sup> Gue Myung Lee,<sup>4</sup> and Tamaki Tanaka<sup>5</sup>**

<sup>1</sup> Department of Mathematics, National Kaohsiung Normal University, Kaohsiung 824, Taiwan

<sup>2</sup> Department of Mathematics, Atılım University, Incek, 06836 Ankara, Turkey

<sup>3</sup> Department of Mathematics, National Changhua University of Education, Changhua 50058, Taiwan

<sup>4</sup> Department of Applied Mathematics, Pukyong National University, Busan 608-737, Republic of Korea

<sup>5</sup> Graduate School of Science and Technology, Niigata University, Niigata Prefecture, Niigata 950-2181, Japan

Correspondence should be addressed to Wei-Shih Du; [wdsu@nknuc.nknu.edu.tw](mailto:wdsu@nknuc.nknu.edu.tw)

Received 13 November 2013; Accepted 13 November 2013

Copyright © 2013 Wei-Shih Du et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Fixed point theory has attracted much attention as a very powerful and important tool in nonlinear sciences. Various fields such as biology, chemistry, economics, engineering, game theory, physics, and computer sciences have been using fixed point techniques quite extensively. Recent investigations in the fixed point theory and its applications motivate the development of new fixed point techniques for solving practical problems arising in natural sciences. Recent generalizations of optimization theory and techniques to other formulations comprise a large area of applied mathematics.

The purpose of this special issue is to provide new contribution to the advancement of fixed point theory, equilibrium problems, optimization problems, and their applications in mathematics and quantitative sciences. This special issue includes 27 high-quality peer-reviewed papers related to different aspects of theory and applications of fixed points and optimization. These papers contain new original, creative, and outstanding ideas. We profoundly believe that all the papers published in this special issue will motivate and inspire further scientific activities in the field of fixed point theory, optimization, and their applications.

## Acknowledgments

We would like to express our deepest gratitude to a lot of reviewers, whose professional comments guaranteed the high quality of the selected papers. In addition, we would also like to convey our appreciation to the editorial board members of

this journal, for their kind assistance and support throughout the reviewing process and the preparation of this special issue. We sincerely hope that the readers will find this special issue helpful for them in their future studies.

*Wei-Shih Du  
Erdal Karapınar  
Lai-Jiu Lin  
Gue Myung Lee  
Tamaki Tanaka*