
Editorial

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Biographical notes: Zhengyi Chai was a Visiting Scholar at the Department of Computer Science, University of Nottingham, UK. He is selected as an innovation leading talent of Tianjin University Discipline. In recent years, he has managed two projects from the National Natural Science Foundation of China. He has published over 50 papers in international journals and conferences and contributed to the development of 20 copyrighted software systems and invented over six patents. He served as guest editor/reviewer of some SCI/EI indexed journals. His research interests include the internet of things and artificial intelligence (especially in machine learning and intelligent computing).

I am thrilled to present this special issue of the *China International Journal of Computational Studies*. This collection of papers represents a diverse array of cutting-edge research in the field of computational studies, showcasing the innovative work of researchers from various institutions across China.

The papers included in this special issue cover a wide range of topics, reflecting the breadth and depth of research in computational studies. From performance prediction analysis of college aerobics courses to the application of binocular image reconstruction methods in constructing 3D models of bridge structures, each paper offers valuable insights and contributions to the field.

The issue at hand revolves around a study conducted by Su, Zheng and Chen, which delves into the analysis of performance prediction in college aerobics courses using the back propagation neural network. Their research offers valuable and intriguing insights into this field.

Following that, Li and Li explores the performance prediction analysis of college aerobics courses using back propagation neural network techniques. This research provides valuable insights into improving the effectiveness of aerobics training programs.

Zhang investigates the application of spiking neural networks in art visual image classification, shedding light on how advanced neural network architectures can enhance image recognition tasks in the field of art and design.

Deng presents a novel approach to 3D model reconstruction of wooden arch corridor bridge structures using binocular image reconstruction methods, contributing to the advancement of architectural engineering and digital modelling techniques.

Liu and Zhao delve into the realm of art design and new media interaction, proposing a methodology based on deep learning binocular stereo vision. Their research explores the potential of incorporating cutting-edge technologies into the creative process of art and design.

Next, Xu explores the application of face recognition models in intelligent access control technology, focusing on parameter sharing and dense connection techniques to enhance security systems.

Finally, Wang, Lin and Yang contribute to the issue with their research on nonlinear modelling and analysis of stable behaviour in robot gait control systems, utilising image processing technology for improved performance and stability.

Collectively, these contributions represent the diverse and impactful research being conducted in the fields of neural networks and image processing. We hope that this special issue serves as a valuable resource for researchers, academics, and practitioners interested in exploring the latest advancements and applications of these technologies.

As the guest editor of this special issue, I extend our heartfelt gratitude to all the authors for their valuable contributions and dedication to advancing the field of computational studies. We hope that this collection of papers will inspire further research and innovation in this exciting and dynamic field.