

**International Journal on Artificial Intelligence Tools**  
**Special Issue: Recent Developments in Dynamic Modelling, Control and**  
**Applications of Neural Networks**

**Guest Editors:**

Sitian Qin, Harbin Institute of Technology, Weihai, China. [qinsitian@hitwh.edu.cn](mailto:qinsitian@hitwh.edu.cn)

Shenshen Gu, Shanghai University, Shanghai, China. [gushenshen@shu.edu.cn](mailto:gushenshen@shu.edu.cn)

Nian Zhang, University of the District of Columbia, Washington, DC, USA. [nzhang@udc.edu](mailto:nzhang@udc.edu)

**Topics:** Recent advances and emerging approaches in neural model and learning (i.e. deep neural network) have led to an unparalleled surge of interest in the topic of neural networks. Neural networks provide an intelligent approach for solving complex problems that might otherwise not have a tractable solution. Neural networks have emerged as a powerful tool by providing outstanding performance that allow a wide variety of unprecedented applications in associative memory, function approximation, optimization problem, nonlinear system modelling and control. Neural networks themselves are typically nonlinear, and many different kinds of neural network models have recently been proposed for solving emerging problems. In addition, research on dynamics of neural networks and neural networks based control in nonlinear control system have also grown tremendously.

This special issue will present the latest theoretical and technical advancements, and novel applications of neural networks. Potential topics include but are not limited to the following:

- Dynamical analysis of neural networks
- Neurodynamics approach
- Neural networks model and learning algorithms
- Control and synchronization of chaotic neural networks
- Chaos synthesis or chaos anti-control (or chaotification) in chaotic neural network
- Applications of neural networks in nonlinear systems and operations research.
- Hardware implementation of neural networks

**Tentative Schedule:**

- Paper submission deadline: August 30, 2020
- Acceptance notification: September 30, 2020
- Revised paper submission: October 30, 2020
- Final selection: November 30, 2020