

## Special Issue

# Neural Networks for Feature Extraction

### Message from the Guest Editors

Neural networks have been widely used in feature extraction tasks, and current research focuses on the following aspects: improving the effectiveness of feature learning, e.g., through regularization and pre-training; and designing new neural network structures to learn more abstract and efficient features, e.g., convolutional neural networks, recurrent neural networks, and spike neural networks.

Combining neural networks with other methods can be carried out to form a more powerful feature learning framework.

In summary, neural networks have the advantages of automatically learning features, learning abstract features, good feature generalization, and convergence to stable features, which often make the features learned by neural networks more powerful than artificial features and widely applicable to downstream tasks. Neural networks provide a powerful tool for feature learning and representation.

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### Guest Editors

Dr. Zhen Cao

School of Artificial Intelligence, Xidian University, Xi'an 710071, China

Dr. Zhang Guo

Academy of Advanced Disciplinary Research, Xidian University, Xi'an 710071, China

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*Electronics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[electronics@mdpi.com](mailto:electronics@mdpi.com)

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### Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di  
Torino, 10129 Torino, Italy

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