Advances and applications of Deep Learning
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Session Chair:

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Session description:

Deep learning (DL) has significantly outperformed traditional approaches in a variety of study fields, including prediction, classification, image/speech recognition, vision, and so on. The major distinction between deep learning and other methods is that deep learning provides a computational model for multiprocessing neural network layers by learning and expressing input at numerous levels. As a result, deep learning can easily understand the complicated structure of huge data sets implicitly. As a result, deep learning models can provide intuitions for understanding the complicated structures of massive data sets. Deep learning methods have recently been actively extended to other areas of machine learning, such as reinforcement learning and transfer/meta learning, while standard deep learning methods, such as RNN (recurrent neural network) and CNN (convolutional neural network) algorithms, have also been extensively studied and applied to a wide range of industrial fields. This Special session aims to investigate the most recent theoretical and practical applications of deep learning to many fields. In this regard, research on the application of the most recent deep learning algorithms to image processing and data analysis might be utilised to improve models developed from prior studies. The goal of this Special session is to contribute to the display of novel deep learning algorithms and application domains for solving challenges in many academic areas. We hope to eventually boost deep learning research and development for multimodal data by publishing high-quality research articles and reviews/tutorials in this fast-emerging interdisciplinary subject.

Topics of interest for this Special session include but are not limited to the following:

- ✓ Deep Learning Theory and Algorithms
- ✓ Deep Reinforcement Learning
- ✓ Natural Language Processing
- ✓ Deep Learning Architectures
- ✓ Deep Generative Models
- ✓ Multitask, Transfer, And Meta Learning
- ✓ Explainable And Interpretable AI
- ✓ Application In Any Other Field Using DL Methods

SUBMISSION
Papers must be submitted electronically for peer review by**: January 31, 2023**
Submission – ICCAD 2023 (iccad-conf.com)
All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).