

CALL FOR PAPERS
SPECIAL SESSION ON
Metaheuristics for Neural Network Optimization
for CDMA'25
Feb. 16-17, 2025, Riyadh, Saudi Arabia

Session/Workshop Chair:

- Prof. **Aziz OUAARAB**, Computer and Systems Engineering Laboratory, Cadi Ayyad University, Morocco, aziz.ouaarab@gmail.com

Session description:

Metaheuristics optimization of neural networks is driven by the need to enhance the performance and efficiency of AI models in solving complex, real-world problems. Traditional methods for tuning neural networks often fall short in navigating the vast and intricate search spaces of hyperparameters and weights. Metaheuristics offer robust, flexible strategies to explore these spaces more effectively, enabling the discovery of optimal or near-optimal configurations. This leads to better generalization, faster convergence, and improved accuracy of neural networks. The integration of these techniques can significantly advance fields such as healthcare, finance, and autonomous systems by providing more reliable and high-performing AI solutions, ultimately pushing the boundaries of what is achievable with artificial intelligence..

This special session highlights contributions in optimizing neural network by metaheuristics. The session seeks to provide insights into how metaheuristic algorithms can effectively improve neural network.

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

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| ✓ Artificial Neural Networks. | ✓ Metaheuristics |
| ✓ Differential evolution | ✓ Hyperparameters |
| ✓ Nature inspired algorithms | ✓ Deep learning.. |
| ✓ Convolutional neural networks. | ✓ Reinforcement learning |

Submission

Papers must be submitted electronically for peer review by: **October 31, 2024**
https://easychair.org/account2/signin_timeout?l=6366112383385508012

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).