Special Session on

Deep learning for Data Processing and Cyber Security Applications
at

22nd International Conference on Intelligent Systems Design and Applications

(ISDA'22)

on

World Wide Web

December 12-14, 2022

https://www.mirlabs.org/isda22/

Objectives and Scope

Deep learning is an emerging powerful AI technique that uses multi-layered artificial neural networks to achieve state-of-the-art performance in various domains. Deep learning is used by computers to learn and recognize patterns from different kinds of data like text, image, video, spatial, temporal that are too complex in structure with heterogeneous characteristics. Cyber systems generate huge volumes of data and utilizing this effectively is beyond human capabilities. There exists a huge threat regarding data security and privacy in the data generated by such digitally connected systems. Cybersecurity is the protection mechanism to defend internet-connected devices and services from malicious attacks by hackers, spammers, and cybercriminals. Deep learning algorithms can be effectively used for protection against different types of vulnerabilities and attacks by deeply learning the features of networks and data that are being used. There is an acute need by the research community in developing novel solutions to handle all these security threats.

High Quality papers are invited from academicians, researchers, and industry professionals in the following topics with applications of deep learning algorithms.

Subtopics

The topics include, but are not limited to:

- Convolutional Neural Networks
- Long Short Term Memory Networks
- Recurrent Neural Networks
- Generative Adversarial Networks
- Radial Basis Function Networks
- Auto Encoders
- Multilayer Perceptrons
- Self Organizing Maps
- Deep Belief Networks
- Restricted Boltzmann Machines
- Data Preprocessing
- Data Analytics
- Natural Language Processing
- Computer Vision
- Robotics
- Deep Learning Business Applications

- Forecasting Solutions
- Human-AI Teaming for cyber security
- Intrusion Detection and Prevention Systems (IDS/IPS)
- Spam and Social Engineering Detection
- Network Risk Scoring
- Modeling and Simulation of Cyber Systems

Paper Publications

- Proceedings will be published in Lecture Notes in Networks and Systems, Springer (Indexed in SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago) https://www.springer.com/series/15179
- Papers maximum length is 10 pages
- Papers must be formatted according to Springer format (Latex/word) available at: https://www.springer.com/de/authors-editors/book-authors-editors/manuscript-preparation/5636#c3324

Important Dates

Paper submission due: September 30, 2022
Notification of paper acceptance: October 31, 2022
Registration and Final manuscript due: November 15, 2022
Conference: December 12-14, 2022

Special Session Chairs

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