

**The 21st IEEE International Conference on Machine Learning and Applications
(IEEE ICMLA-2022)**

3rd Special Session: Machine Learning for Natural Language Processing

December 12-15, 2022, Nassau, The Bahamas

<https://www.icmla-conference.org/icmla22/>

Introduction:

Nowadays, with billions of text documents overflowing from the web, there is a great need for efficient techniques that process and analyze large amounts of data. Modern NLP techniques makes it possible for computers to read and interpret text, hear and understand speech, measure sentiment, and determine which parts in a document are important. In this context, machine learning (ML) has become an essential tool for natural language processing, and has emerged in different NLP application scenarios, such as sentiment analysis, document classification, text summarization, speech recognition, etc. Despite the success of ML algorithms in this application, several existing methods are challenged by the input data, which are noisy, heterogeneous, sparse and high dimensional. From this point of view, recent ML techniques, such as those based on deep learning, reinforcement learning, few-shot learning and so on, have shown an improvement in recent years in solving challenging NLP problems.

Scope:

The second edition of this special session aims to highlight recent progress in NLP techniques and methodologies, with a focus on the latest advances in machine learning applications for natural language processing. The purpose of this session is to bring together professionals, researchers and experts in natural language processing and machine learning in order to discuss the main challenges and define possible future directions in this area.

This session invites submissions with high-quality works that are related – but are not limited to – the topics below:

- Deep learning for NLP
- Reinforcement Learning for NLP
- Unsupervised Learning for NLP
- Automatic machine translation
- Automatic document summarization
- Text classification
- Text detection and recognition from images
- Question Answering systems
- Transfer Learning for NLP
- Active Learning for NLP
- Speaker identification
- Speech recognition
- Speech to Text
- Text generation
- Sentiment analysis
- Real-life and industrially relevant NLP applications

- Email filtering
- Chatbot
- News generation
- Meeting analysis
- Fact Checking
- CVs analysis and classification

Submission Guidelines and Instructions

Papers submitted for reviewing should conform to IEEE specifications. Manuscript templates can be downloaded from [IEEE website](#). The maximum length of papers is 8 pages. All the papers will go through double-blind peer review process. Authors' names and affiliations should not appear in the submitted paper. Authors' prior work should be cited in the third person. Authors should also avoid revealing their identities and/or institutions in the text, figures, links, etc.

Important Dates:

Submission Deadline: September 9, 2022

Notification of Acceptance: October 7, 2022

Camera-ready papers & Pre-Registration: October 14, 2022

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