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ICMLC  
ICWAPR

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## Call For Papers

### Invited Session

# Deep Processing of Unstructured Data

In order to get high quality papers, we invite you to submit paper to Invited Session on Deep Processing of Unstructured Data in International Conference on Machine Learning and Cybernetics (ICMLC) 2022.

#### Description

This session aims at exploring intelligent ways of processing in depth unstructured data in terms of feature extraction, feature selection and classification. In the context of machine learning, unstructured data normally needs to be transformed into structured data through feature extraction prior to training of classifiers. In the setting of representation learning, it is essential to learn a feature extractor that can be well generalized to unseen data, i.e. features extracted from training data need to be well applicable to test data and features that well describe test data should be present from training data. Also, feature extraction from unstructured data generally leads to high dimensionality of feature vectors. From the above points of view, it is necessary to adopt feature selection techniques to not only reduce the dimensionality but also increase the correlation between the feature space and the label space. On the other hand, in order to increase the depth of learning, it is necessary to ensure that a layer-by-layer processing of data is involved and the feature space is also updated iteratively during the learning process. Furthermore, sample representativeness is another issue that could not only result in overfitting of classifiers on training data but also increase the chance to cause insufficient generalizability of a feature extractor, i.e., if a sample set does not represent a full population of instances in a domain, it would be likely to train a classifier that overfits the sample set and to extract features that are incompatible with features that well describe unseen data. This session welcomes submissions of papers related to unstructured data processing and papers that address the above issues are particularly encouraged. All submitted papers will be evaluated on the basis of their relevance, technical merit and quality of writing.

#### Topics of Interest

- Natural Language Processing
- Knowledge Graph
- Feature Extraction
- Feature Selection
- Feature Transformation
- Feature Fusion
- Deep Learning
- Ensemble Learning
- Representation Learning
- Meta Learning
- Embedding Learning
- Text Mining
- Image Processing
- Signal Processing
- Computer Vision
- Computer Graphics
- Medical Imaging
- Covid Diagnosis
- Sentiment Analysis
- Affective Computing
- Emotion Detection
- Topic Detection
- Cyberbullying Detection
- Cyberhate Detection
- Social Media Analysis
- 3D Reconstruction
- Object Recognition
- Activities Recognition
- Emotion Cause Analysis
- Question Answering Systems
- Machine Translation

#### Important Dates

**Submission Due:** 15 Jun 2022  
**Notification of Acceptance:** 1 Aug 2022  
**Registration Due:** 15 Aug 2022  
**Camera-Ready:** 15 Aug 2022

#### Paper Submission

Authors must submit an electronic copy (in word or pdf) of their complete manuscript directly to the Session Organizer (Lih48@cardiff.ac.uk or li.zhang@rhul.ac.uk) before June 15, 2022

#### Organizer

**Dr. Han Liu**  
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