

**Title:**

Natural Language Processing & Deep Learning

Abstract:

The NLP workshop on Natural Language Processing & Deep Learning serves as a highly selective and premier international forum for researchers to discuss the frontier issues related to NLP and the related applications. This workshop will be held with the 7th International Conference on Artificial Intelligence and Security (ICAIS 2021) in July 2021 at Dublin, Ireland and the organizing committee is excited to invite you to take part in this workshop.

Today, NLP technologies are becoming one of the most active research areas due to the rapid advancement of social media and the Internet. The fields are facing many new challenges from big data and artificial intelligence research areas, such as social media analytics, business intelligence application, etc. Although word embedding and distributional representation technologies help us make achievements in NLP tasks, there are still many problems to be solved. This workshop provides an international forum for both researchers and practitioners to report their latest innovations, summarize state-of-the-art in the field, and exchange ideas, results, and visions in all aspects of NLP, such as new word vector models, Deep Learning in NLP, Machine Learning for NLP, Question Answering, NLP for Social Networks, as well as the NLP Applications. Accepted papers will have the same benefits as the main conference, and outstanding papers could be recommended to be published in SCI indexed journals.

Scope and Topics:

Potential topics include but are not limited to:

- ✧ Fundamentals of Language Computing
- ✧ Lexical and Compositional Semantics
- ✧ Word Segmentation & Named Entity Recognition
- ✧ Syntactic Parsing, Semantic Analysis, Discourse Analysis
- ✧ NLP for Chinese Computing
- ✧ Applications of NLP
- ✧ NLP for Mobile Computing
- ✧ Machine Translation & Multilingual Information Access
- ✧ Natural Language Generation
- ✧ Machine Learning for NLP
- ✧ Deep Learning in NLP
- ✧ Web/Text Mining & Big Data
- ✧ Information Retrieval & Question Answering
- ✧ Sentiment Analysis and Opinion Mining



- ✧ Knowledge Representation & Acquisition
- ✧ Web, Social Media and Computational Social Science
- ✧ Textual embeddings and their applications
- ✧ Information Hiding in Text & Security
- ✧ Other NLP Applications

Program Committee Chairs:

Victor S. Sheng, University of Central Arkansas, USA

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Victor S. Sheng received the master's degree in computer science from the University of New Brunswick, Canada, in 2003 and the PhD degree in computer science from Western University, Ontario, Canada, in 2007. He is an associate professor of computer science with the University of Central Arkansas, and the founding director of Data Analytics Lab (DAL). His research interests include data mining, machine learning, and related applications. He was an associate research scientist and NSERC postdoctoral fellow in information systems in the Stern Business School, New York University. He received the best paper award runner-up from KDD'08, and the best paper award from ICDM'11. He is a PC member for a number of international conferences and a reviewer for several international journals. He is a senior member of the IEEE and a life-time member of the ACM.

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Zhaoxia WANG is Associate Professor at the School of Information Systems, Singapore Management University, Singapore, with more than 60 papers published in international journals and conferences. She was Scientist, Senior Scientist and Programme Manager at Institute of High Performance Computing (IHPC), Agency for Science, Technology and Research (A*STAR), Singapore, from 2011 to 2019.

She is a member of IEEE and has been an Associate Editor of the Electronic Commerce Research and Applications (ECRA) journal since 2013. She has been awarded an Adjunct Professorship of Tianjin University since 2015. As an expert in AI, data analytics, and NLP (focused on fine-grained sentiment and emotion analysis), she has successfully led and delivered more than 10 research as well as industry projects as Principal Investigator (PI), co-PI and Technical Lead during her 10+ years of working experience in Singapore since 2008, and had successfully delivered 6 projects as PI or co-PI in her early career as an associate professor from 2004 to 2008 in China. She spearheaded the development of 5+ quality IPs as the first inventor and more than 10 companies have signed evaluation licenses or commercial licenses on her patents.

Her research interests include Natural Language Processing (NLP) and Natural Language Understanding (NLU), Machine Learning, Image Processing, Deep



Language Understanding and Intelligent Robots, Casual Reasoning and Language Understanding, Text Mining, Fine-grained Sentiment and Emotion Analysis, Social Media Content Mining and Analysis, Safety and Risk Analysis, Artificial Intelligence (AI) & Computational Intelligence (CI) and their Applications. She was awarded Adjunct Professorship of Tianjin University, in 2015, and Nanjing University of Information Science and Technology, in 2018.

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Leiming Yan received his PhD in computer science from School of Computer Science and Engineering, Southeast University, China, in 2010. He is currently a lecturer in School of Computer and Software, Nanjing University of Information Science and Technology, China. He was a visiting scholar of Faculty of Computer Science, University of New Brunswick, Canada, from May 2015 to May 2016. His research interests include big data mining, complex networks, deep learning and NLP.

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