IEEE ICBK2021 Programme (Online)

December 07 – 08, 2021

Scheduled in Beijing/Hong Kong Time

Session K1, K2, K3, A1, A2, A3, A4
Zoom: https://umac.zoom.us/j/98925519733?pwd=NUl6bmRLMjd2MHR1K09PWTFMZktVZz09
PW: 12070821

Session B1, B2, B3,B4
Zoom: https://umac.zoom.us/j/98684122073?pwd=eVRWQkI5SWlhWXRISmJhNll0OVZHUT09
PW: 12080721

Day1: December 07 2021

Opening and Keynote Session K1 (09:00 – 11:30)

09:00 – 09:30   Opening Session, Chair: Xindong Wu

09:30 – 10:30   Keynote Speech 1 (K1), The Evolution of Future Network Technology (Yunjie Liu), Chair: Lei Chen

Parallel Session A1 (10:30 – 11:30), Chair: Min-Ling Zhang

		PaperID	Presenter	Title
	Machine Learning and Knowledge Graphs			
01	10:30-10:45	KG244	Runnan Tan	Graph Neural Network for Ethereum Fraud Detection
02	10:45-11:00	KG248	Heng-Ru Zhang	Label Distribution Learning by Exploiting Feature-Label Correlations Locally
03	11:00-11:15	KG256	Yujie Wang	Improving Gradient-based DAG Learning by Structural Asymmetry
04	11:15-11:30	KG260	Haixia Zhao	Intuitionistic Fuzzy Requirements Aggregation for Graph Pattern Matching with Group Decision Makers
05	11:30-11:45	KG220	Shujing Ke	Surprisingness – A Novel Objective Interestingness Measure in Hypergraph Pattern Mining for Unsupervised Common Sense Learning

Parallel Session A2 (14:00 – 17:30) Afternoon, Chair: Zheng Wang

		PaperID	Presenter	Title
	Machine Learning and Knowledge Graphs			
01	14:00-14:15	KG204	Yi Zhu	Personalized Recommendation Based On Entity Attributes and Graph Features
02	14:15-14:30	KG206	Yuxun Lu	Unsupervised Type Constraint Inference in Bilinear Knowledge Graph Completion Models
03	14:30-14:45	KG218	Kang Yan	A Novel Homophily-aware Correction Approach for Crowdsourced Labels Using Information Entropy
04	14:45-15:00	KG224	Himel Das Gupta	Knowledge Distillation via Weighted Ensemble of Teaching Assistants
05	15:00-15:15	KG230	Divya Gangwani	An Empirical Study of Deep Learning Frameworks for Melanoma Cancer Detection using Transfer Learning and Data Augmentation
06	15:15-15:30	KG234	Wentao Hu	Accelerating Learning Bayesian Network Structures by Reducing Redundant CI Tests
07	15:30-15:45	KG235	Guixian Zhang	Aggregation Enhanced Graph Convolutional Network for Graph Classification
08	15:45-16:00	KG241	Youxi Wu	HSNP-Miner: High Utility Self-Adaptive Nonoverlapping Pattern Mining

16:10 – 17:10 Keynote Speech 2 (K2) - Combining Deductive and Statistical Explanations in the FRANK Query Answering System (Alan Bundy), Chair: Xue Li

Day1: December 07 2021

Parallel Session B1 (10:30 – 11:30) Morning, Chair: Zhi Jin

	Machine Learning for Streaming Data			
01	10:30-10:45	DM319	Zhong Chen	CSRDA: Cost-sensitive Regularized Dual Averaging for Handling Imbalanced and High-dimensional Streaming Data
02	10:45-11:00	DM1202	Chenyu Cao	Recognizing Characters and Relationships from Videos via Spatial-Temporal and Multimodal Cues
03	11:00-11:15	DM598	Kentaro Ohno	Recurrent Neural Networks for Learning Long-term Temporal Dependencies with Reanalysis of Time Scale Representation
04	11:15-11:30	DM1057	Xikun Huang	Temporal Analysis of Knowledge Networks

Parallel Session B2 (14:00 – 17:15) Afternoon , Chair: Yiyang Yang

		PaperID	Presenter	Title
Machine Learning and Knowledge Graphs, Machine Learning for Streaming Data				
01	14:00-14:15	KG269	Ru Wang	Meta-path Enhanced Knowledge Graph Convolutional Network for Recommender Systems
02	14:15-14:30	DM1009	Nan Xu	Treatment Recommendation with Preference-based Reinforcement Learning
03	14:30-14:45	DM269	Sha Lu	Divide and Conquer: Targeted Adversary Detection using Proximity and Dependency
04	14:45-15:00	KG216	Ze Yang	MTSC-GE: A Novel Graph based Method for Multivariate Time Series Clustering
05	15:00-15:15	KG217	Changyang Tai	Gaussian Model-Based Fully Convolutional Networks for Multivariate Time Series Classification
06	15:15-15:30	KG245	Xiulin Zheng	An Efficient Framework for Multi-Label Learning in Non-stationary Data Stream
07	15:30-15:45	KG236	Yan Yu	An efficient framework for sentence similarity inspired by quantum computing

16:10 – 17:10 Keynote Speech 2 (K2) - Combining Deductive and Statistical Explanations in the FRANK Query Answering System (Alan Bundy), Chair: Xue Li

Day2: December 08 2021

Keynote Session K3 (09:00 – 10:00), Chair: Zhiguo Gong

09:00 – 10:00   Keynote Speech 3 - What to Expect for the Next Generation Distributed File Systems? (Weimin Zheng)

Parallel Session A3 (10:00 – 12:30) Morning, Chair：Xiaowei Wu

		PaperID	Presenter	Title
Reasoning with Knowledge Graphs, Knowledge Graph Analytics and Applications				
01	10:00-10:15	KG211	Wei Qin	Implicit Business Competitor Inference Using Heterogeneous Knowledge Graph
02	10:15-10:30	KG219	Liangzhu Zhou	Research on Crowdsourcing Truth Inference Method Based on Graph Embedding
03	10:30-10:45	KG265	Xiuxing Li	Jointly Modeling Fact Triples and Text Information for Knowledge Base Completion
04	10:45-11:00	KG274	Ru Chen	A Scheme for Kinship Reasoning based on Ontology
05	11:00-11:15	KG276	Huan Zhang	A divide-and-conquer method for computing preferred extensions of argumentation frameworks
06	11:15-11:30	KG223	Wei Emma Zhang, Queen Nguyen	Constructing COVID-19 Knowledge Graph from A Large Corpus of Scientific Articles
07	11:30-11:45	KG277	Chuanqing Wang	YABKO-Yet Another Big Knowledge Organization
08	11:45-12:00	DM426	Chowdhury Farhan Ahmed	UFreS: A New Technique for Discovering Frequent Subgraph Patterns in Uncertain Graph Databases
09	12:00-12:15	DM623	Evan Shieh	Attribute Similarity and Relevance-Based Product Schema Matching for Targeted Catalog Enrichment
10	12:15-12:30	DM587	Varun Ravikumar Embar	Diffxtract: Joint Discriminative Product Attribute-Value Extraction

Parallel Session B3 (10:00 – 12:15) Morning, Chair: Pengyang Wang

		PaperID	Presenter	Title
Knowledge Graphs and NLP				
01	10:00-10:15	KG202	Yin Wang	Global Semantics with Boundary Constraint Knowledge graph for Chinese Financial Event Detection
02	10:15-10:30	KG205	Wenwu Zhi	A Semi-supervised Bilingual Lexicon Induction Method for Distant Language Pairs Based on Bidirectional Adversarial Model
03	10:30-10:45	KG207	Mei Ma	Multi-level Spatio-temporal Matching Network for Multi-turn Response Selection in Retrieval-based Dialogue Systems
04	10:45-11:00	KG208	Wei Nong	HfGCN: Hierarchical fused GCN for Joint Entity and Relation Extraction
05	11:00-11:15	KG221	Zahra Ahmadi	Topic-guided Knowledge Graph Construction for Argument Mining
06	11:15-11:30	KG228	Huixin Zhan	Gated Graph Neural Networks (GG-NNs) for Abstractive Multi-Comment Summarization

07	11:30-11:45	KG237	Meng Jiang	Multi-Round Parsing-based Multiword Rules for Scientific Knowledge Extraction
08	11:45-12:00	KG263	Xiuxing Li	Bridging the Language Gap: Knowledge Injected Multilingual Question Answering
09	12:00-12:15	KG264	Xiao Zhang	A Knowledge Enhanced Chinese GaoKao Reading Comprehension Method

Parallel Session A4 (14:00 – 17:00) Afternoon, Chair: Junyang Chen

		PaperID	Presenter	Title
			Social Network and Representation Learning, Knowledge Graphs for Education	
01	14:00-14:15	KG239	Fanghui Bi	A Proximal Alternating-direction-method-of-multipliers-based Nonnegative Latent Factor Model
02	14:15-14:30	KG261	Peng Zhang	An Ensemble Latent Factor Model for Highly Accurate Web Service QoS Prediction
03	14:30-14:45	KG272	Xiyu Qiao	Influence Maximization Using User Connectivity Guarantee in Social Networks
04	14:45-15:00	KG226	Yushi Hirose	Transductive Data Augmentation with Relational Path Rule Mining for Knowledge Graph Embedding
05	15:00-15:15	DM1026	Bingke Xu	Fair Representation Learning in Knowledge-aware Recommendation
Break(30 Minutes)				
06	15:45-16:00	DM476	Tongya Zheng	Learning Dynamic Preference Structure Embedding From Temporal Networks
07	16:00-16:15	KG242	Jingchao Qi	ToFM: Topic-specific Facet Mining by Facet Propagation within Clusters
08	16:15-16:30	KG247	Hongwei Zeng	Multi-task Learning for Multi-turn Dialogue Generation with Topic Drift Modeling
09	16:30-16:45	KG255	Wenjun Wu	Fuzzy c-Means Clustering with Discriminative Projection
10	16:45-17:00	KG266	Siqi Lei	Consistency-aware Multi-modal Network for Hierarchical Multi-label Classification in Online Education System

Parallel Session B4 (14:00 – 16:45) Afternoon，Chair: Hadi Akbarzadeh Khorshidi

		PaperID	Presenter	Title
			Operations Research, Optimisation and Machine Learning	
01	14:00-14:15	KG240	Wei Song	Mining Unexpected Sequential Patterns from MOOC Data
02	14:15-14:30	KG243	JianCheng Du	Query-focused Abstractive Summarization viaQuestion-answering Model
03	14:30-14:45	KG249	Jaber Valizadeh	A Robust Mathematical Model for Blood Supply Chain Network using Game Theory
04	14:45-15:00	KG252	Panpan Lei	Answer-Centric Local and Global Information Fusion for Conversational Question Generation
05	15:00-15:15	KG254	Yongguo Liu	A Character-Word Graph Attention Networks for Chinese Text Classification
Break (30 Minutes)				
06	15:45-16:00	KG258	Fan Min	A Genetic Algorithm for Residual Static Correction
07	16:00-16:15	KG262	Zahra Ghasemi	A survey on Optimisation-based Semi-supervised Clustering Methods
08	16:15-16:30	KG268	Yuxin He	Question-formed Query Suggestion
09	16:30-16:45	KG273	PanYan	Intervention Prediction for Patients with Pressure Injury Using Random Forest