

Technical Program

CSoNet 2021

November 15-17, 2021

November, 15, 2021	
9:00 - 9:10	Welcome and Opening Remarks
9:10 - 9:30	Remarks from TPC co-chairs and Best Papers Awards Announcement
9:30-10:30	Opening Session
	Causal Inference for Influence Propagation --- Identifiability of the Independent Cascade Model <i>Shi Feng and Wei Chen</i>
	Recovering communities in temporal networks using persistent edges <i>Konstantin Avrachenkov, Maximilien Drevet and Lasse Leskelä</i>
	Streaming algorithms for maximizing non-submodular functions on the integer lattice <i>Bin Liu, Zihan Chen, Huijuan Wang and Weili Wu</i>
10:30-10:40	Break
10:40-12:00	Session 1: Machine Learning and Applications
	AdvEdge: Optimizing Adversarial Perturbations against Interpretable Deep Learning <i>Eldor Abdukhamidov, Mohammed Abuhamad, Firuz Juraev, Eric Chan-Tin and Tamer Abuhmed</i>
	A Deep Learning Based Traffic Sign Detection for Intelligent Transportation Systems <i>Bao-Long Le, Gia-Huy Lam, Xuan-Vinh Nguyen, The-Manh Nguyen, Quoc-Loc Duong, Quang Dieu Tran, Trong-Hop Do and Nhu-Ngoc Dao</i>
	Incorporating Transformer Models for Sentiment Analysis and News Classification in Khmer <i>Md Rifatul Islam Rifat and Abdullah Al Imran</i>
	MIC Model for Cervical Cancer Risk Factors Deep Association Analysis <i>Tiehua Zhou, Yingxuan Tang, Ling Gong, Hua Xie, Minglei Shan and Ling Wang</i>
12:00-12:40	Lunch
12:40-14:40	Session 2: Healthcare Analysis
	Security Breaches in the Healthcare Domain: A Spatiotemporal Analysis <i>Mohammed Al Kinson, Marwan Omar, Manar Mohaisen and David Mohaisen</i>

	<p>Twitter Analysis of Covid-19 Misinformation in Spain <i>Diego Saby, Olivier R. Philippe, Nataly Buslon, Javier del Valle, Oriol Puig, Ramón Salaverría and María José Rementería</i></p> <p>Social and Motivational Factors for the Spread of Physical Activities in a Health Social Network <i>Nhathai Phan, David Kil, Brigitte Piniewski and Dejing Dou</i></p> <p>Understanding the Issues Surrounding COVID-19 Vaccine Roll Out Via User Tweets <i>Jose Esparza, Gissella Bejarano, Arti Ramesh and Anand Seetharam</i></p> <p>Social cohesion during stay-at-home phase during the first wave of COVID-19 in Poland <i>Andrzej Jarynowski, Alexander Semenov, Monika Wójta-Kempa and Vitaly Belik</i></p> <p>Summarization Algorithms for News: a Study of the Coronavirus Theme and its Impact on the News Extracting Algorithm <i>Lyudmila Gadasina, Vladislav Veklenko and Pasi Luukka</i></p>
14:40-14:50	Break
14:50-16:10	Session 3: Complex Network Analysis
	<p>Community Detection using Semilocal Topological Features and Label Propagation Algorithm <i>Akrati Saxena, Ralucca Gera and Deepanshu Malhotra</i></p> <p>Comparing Community-aware Centrality Measures in Online Social Networks <i>Stephany Rajeh, Marinette Savonnet, Eric Leclercq and Hocine Cherifi</i></p> <p>A Framework for Accelerating Graph Convolution Networks on Massive Datasets <i>Xiang Li, Ruoming Jin, Rajiv Ramnath and Gagan Agrawal</i></p> <p>Influence and Activation Thresholds Target Set Selection within Community Structure <i>Zhecheng Qiang, Eduardo Pasiliao and Qipeng Zheng</i></p>
November 16, 2021	
9:00-10:00	<p>Keynote Speech Speaker: Prof. Walid Saad Title: Distributed Machine Learning in Wireless Networks: Challenges and Opportunities</p>
10:00-10:10	Break
10:10-12:10	Session 4: Crowdsourcing and Influences
	Streaming algorithms for Budgeted k -Submodular Maximization problem

	<p><i>Canh Pham, Dung Ha, Quang Vu and Tai Nguyen</i></p> <p>When Manufacturer Builds the External Developer Network: Effects of Crowdsourcing Design <i>Ping Yan and Jun Pei</i></p> <p>Data-driven Integrated Production Planning and Scheduling in Supply Chain Network: New Paradigm and Two-stage Collaborative Algorithm <i>Ya Zhou and Jun Pei</i></p> <p>Deep Bangla Authorship Attribution using Transformer Models <i>Abdullah Al Imran and Md Nur Amin</i></p> <p>Network based Framework to Compare Vaccination Strategies Rishi Ranjan Singh, Amit Kumar Dhar, Arzad Alam Kherani, Naveen Varghese <i>Jacob, Devansh Bajpai and Ashitabh Misra</i></p> <p>Detecting Hate Speech Contents Using Embedding Models <i>Phuc Duong</i></p>
12:10-13:00	Lunch
13:00-14:20	Session 5: Network Analysis
	<p>Power Grid Cascading Failure Prediction Based on Transformer <i>Tianxin Zhou, Xiang Li and Haibing Lu</i></p> <p>Two-Tier Cache-Aided Full-Duplex Content Delivery in Satellite-Terrestrial Networks <i>Quynh Ngo, Khoa Phan, Wei Xiang, Abdun Mahmood and Jill Slay</i></p> <p>Social activity and decentralized applications in blockchain-based social networks <i>Cheick Tidiane Ba, Galdeman Alessia, Matteo Zignani and Sabrina Gaito</i></p> <p>Transfer learning and loan default prediction <i>Tzvi Feinberg, Alexander Semenov, Yongpei Guan, Dmitry Grigoriev and Artem Prokhorov</i></p>
14:20-14:30	Break
14:30-16:10	Session 6: Fact-Checking, Fake News and Malware Detection
	<p>Fake News Detection using LDA Topic Modelling and K-Nearest Neighbor Classifier <i>Francesco Colace, Mario Casillo and Domenico Santaniello</i></p> <p>Vulnerabilities Assessment of Deep Learning-based Fake News Checker under Poisoning Attacks <i>Fiammetta Marulli, Lelio Campanile, Mauro Iacono, Michele Mastroianni and Pasquale Cantiello</i></p>

	<p>Mean User-Text Agglomeration (MUTA): Practical User Representation and Visualization for Detection of Online Influence Operations <i>Evan Crothers, Herna Viktor and Nathalie Japkowicz</i></p> <p>The Role of Information Organization and Knowledge Structuring in Combatting Misinformation: A Literary Analysis <i>Kevin Matthe Caramancion</i></p> <p>Machine Learning Technique for Fake News Detection Using Text-Based Word Vector Representation <i>Akshat Gaurav, B B Gupta, Ching-Hsien Hsu, Arcangelo Castiglione and Kwok Tai Chui</i></p>
November 17, 2021	
9:00-10:00	<p>Keynote Speech Speaker: Prof. Dusit Niyato Title: Reliable Federated Learning for Mobile Networks</p>
10:00-10:10	Break
10:10-12:10	Session 7: Optimization
	<p>Approximation Algorithm for Maximizing Nonnegative Weakly Monotonic Set Functions <i>Min Cui, Donglei Du, Dachuan Xu and Ruiqi Yang</i></p> <p>Groups Influence with Minimum Cost in Social Network <i>Phuong Pham, Canh Pham, Hieu Duong, Thanh Nguyen and My T. Thai</i></p> <p>Differentially Private Submodular Maximization over Integer Lattice <i>Jiaming Hu, Dachuan Xu, Donglei Du and Cuixia Miao</i></p> <p>Maximizing the sum of a supermodular function and a monotone DR-submodular function subject to a knapsack constraint on the integer lattice <i>Jingjing Tan, Yicheng Xu, Dongmei Zhang and Xiaoqing Zhang</i></p> <p>Approximation algorithms for the lower bounded correlation clustering problem <i>Sai Ji, Yinhong Dong, Donglei Du and Dachuan Xu</i></p> <p>Minimize Travel Time with Traffic Flow Density Equilibrium on Road Network <i>Qinghua Tang, Demin Li, Shuang Zhou and Yue Fu</i></p>
12:10-12:20	Concluding remarks