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	**Best Papers Presentation**
	Causal Inference for Influence Propagation --- Identifiability of the Independent Cascade Model *Shi Feng and Wei Chen* Recovering communities in temporal networks using persistent edges *Konstantin Avrachenkov, Maximilien Dreveton and Lasse Leskelä* Streaming algorithms for maximizing non-submodular functions on the integer lattice *Bin Liu, Zihan Chen, Huijuan Wang and Weili Wu*
10:30-10:40	Break
10:40-12:00	Session 1: Machine Learning and Applications
	AdvEdge: Optimizing Adversarial Perturbations against Interpretable Deep Learning *Eldor Abdukhamidov, Mohammed Abuhamad, Firuz Juraev, Eric Chan-Tin and Tamer Abuhmed* A Deep Learning Based Traffic Sign Detection for Intelligent Transportation Systems *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* Incorporating Transformer Models for Sentiment Analysis and News Classification in Khmer *Md Rifatul Islam Rifat and Abdullah Al Imran* MIC Model for Cervical Cancer Risk Factors Deep Association Analysis *Tiehua Zhou, Yingxuan Tang, Ling Gong, Hua Xie, Minglei Shan and Ling Wang*
12:00-12:40	Lunch
12:40-14:40	Session 2: Heathcare Analysis
	Security Breaches in the Healthcare Domain: A Spatiotemporal Analysis *Mohammed Al Kinoon, Marwan Omar, Manar Mohaisen and David Mohaisen*

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

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

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