

# **2020 11th International Conference on Information and Knowledge Technology (IKT 2020)**

**Tehran, Iran  
22 – 23 December 2020**



**IEEE Catalog Number: CFP20IKT-POD  
ISBN: 978-1-6654-0442-6**

**Copyright © 2020 by the Institute of Electrical and Electronics Engineers, Inc.  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP20IKT-POD
ISBN (Print-On-Demand):	978-1-6654-0442-6
ISBN (Online):	978-1-6654-0441-9

**Additional Copies of This Publication Are Available From:**

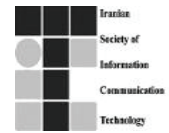
Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com



# 2020 11th International Conference on Information and Knowledge Technology (IKT)

December 22-23, 2020; Shahid Beheshti University - Tehran, Iran



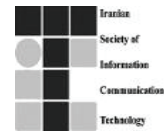
## Table of Content

<b>01- “Challenges of Specification Mining-based Test Oracle for Cyber-Physical Systems”</b> Maryam Raiyat Aliabadi - Mojtaba Vahidi - Ramak Ghavamizadeh .....	1
<b>02- “Effective Classifier for Predicting Churn in Payment Terminals Using RFM model and Deep Neural Network”</b> Mahila Dadfarnia - Ali Alemi Matinpour - Monireh Abdoos .....	8
<b>03- “Knowledge Gap Extraction Based on the Learner Click Behavior in Interaction with Videos Using the Association Rule Algorithm”</b> Yosra Bahrani - Omid Fatemi .....	11
<b>04- “Classification and Evaluation of Privacy Preserving Data Mining Methods”</b> Negar Nasiri - Mohammadreza Keyvanpour .....	17
<b>05- “A Neural-based Approach to Aid Early Parkinson's Disease Diagnosis”</b> Armin Salimi-badr - Mohammad Hashemi .....	23
<b>06- “A Multi Objective &amp; Trust-Based Workflow Scheduling Method In Cloud Computing Based On The MVO Algorithm”</b> Fatemeh Ebadifard, Seyed Morteza Babamir, Fatemeh Labafiyan .....	26
<b>07- “Statistical Distance-Base Acceptance Strategy for Desirable Offers in Bilateral Automated Negotiation”</b> Arash Ebrahimnezhad - Hamid Jazayeriy - Faria Nassiri-Mofakham .....	31
<b>08- “Using Deconvolutional Variational Autoencoder for Answer Selection in Community Question Answering”</b> Golshan Afzali Boroujeni - Hesham Faili .....	35
<b>09- “Integration of Electric Vehicles in Smart Grid using Deep Reinforcement Learning”</b> Farkhondeh Kiaee .....	40
<b>10- “ParaKavosh: A Parallel Algorithm for Finding Biological Network Motifs”</b> Zahra Razaghi Moghadam Kashani - Ali Masoudi-nejad - Abbas Nowzari-dalini .....	45
<b>11- “Revert Propagation: Who Are Responsible for a Contagion Initialization in a Diffusion Network?”</b> Arman Sepehr - Mohammadzaman Zamani - Hamid Beigy - Shabnam Behzad .....	50
<b>12- “Classical-Quantum Multiple Access Wiretap Channel with Common Message: One-shot Rate Region”</b> Hadi Aghaee - Bahareh Akhbari .....	55



# 2020 11th International Conference on Information and Knowledge Technology (IKT)

December 22-23, 2020; Shahid Beheshti University - Tehran, Iran

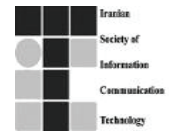


- 13- “An Approach to Model the Optimal Service Provisioning in Vehicular Cloud Networks”**  
Farhoud Jafari Kaleibar - Maghsoud Abbaspour .....62
- 14- “Improving Hypergraph Attention and Hypergraph Convolution Networks”**  
Mustafa Mohammadi Gharasuie - Mahmood Shabankhah - Ali Kamandi .....67
- 15- “An ESB-based Architecture for Authentication as a Service Through Enterprise Application Integration”**  
Masoumeh Hashemi - Mehdi Sakhaei-nia - Morteza Yousef Sanati .....73
- 16- “Persian Language Understanding in Task-oriented Dialogue System for Online Shopping”**  
Zeinab Borhanifard - Hossein Basafa - Seyedeh Zahra Razavi - Hesham Faili .....79
- 17- “A Potential Solutions-Based Parallelized GA for Application Graph Mapping in Reconfigurable Hardware”**  
Seyed Mehdi Mohtavipour - Hadi Shahriar Shahhoseini .....85
- 18- “Vi-Net: A Deep Violent Flow Network for Violence Detection in Video Sequences”**  
Tahereh Zarrat Ehsan - Seyed Mehdi Mohtavipour .....88
- 19- “Targeted Vaccination for COVID-19 Using Mobile Communication Networks”**  
Mohammadmohsen Jadidi - Pegah Moslemi - Saeed Jamshidiha - Iman Masroori - Abbas Mohammadi - Vahid Pourahmadi  
.....93
- 20- “Open-Domain Question Classification and Completion in Conversational Information Search”**  
Omid Mohammadi Kia - Mahmood Neshati - Mahsa Soudi Alamdari .....98
- 21- “PeCoQ: A Dataset for Persian Complex Question Answering over Knowledge Graph”**  
Romina Etezadi - Mehrnoush Shamsfard .....102
- 22- “Detection and Identification of Cyber-Attacks in Cyber-Physical Systems Based on Machine Learning Methods”**  
Zohre Nasiri Zarandi, Iman Sharifi .....107
- 23- “Distributed Coordination Protocol for Event Data Exchange in IoT Monitoring Applications”**  
Behnam Khazael - Hadi Tabatabaee Malazi .....113
- 24- “IoT-Based Model in Smart Urban Traffic Control: Graph theory and Genetic Algorithm”**  
Saeed Doostali - Seyed Morteza Babamir - Mohammad Shiralizadeh Dezfoli - Behzad Soleimani Neysiani .....119



# 2020 11th International Conference on Information and Knowledge Technology (IKT)

December 22-23, 2020; Shahid Beheshti University - Tehran, Iran



<b>25- “Business Process Improvement Challenges: A Systematic Literature Review”</b>	
Hanieh Kashfi - Fereidoon Shams Aliee .....	122
<b>26- “The Risk Prediction of Heart Disease by Using Neuro-Fuzzy and Improved GOA”</b>	
Vahid Safari Dehnavi - Masoud Shafiee .....	127
<b>27- “A New Sentence Ordering Method Using BERT Pretrained Model”</b>	
Melika Golestanipour - Seyedeh Zahra Razavi - Hesham Faili .....	132
<b>28- “Distributed Learning Automata-based Algorithm for Finding K-Clique in Complex Social Networks”</b>	
Mohammad Mehdi Daliri Khomami - Alireza Rezvanian - Ali Mohammad Saghiri - Mohammad Reza Meybodi .....	139
<b>29- “Fast Duplicate Bug Reports Detector Training using Sampling for Dimension Reduction”</b>	
Behzad Soleimani Neysiani - Saeed Doostali - Seyed Morteza Babamir - Zahra Aminoroaya .....	144
<b>30- “ParsEL 1.0: Unsupervised Entity Linking in Persian Social Media Texts”</b>	
Majid Asgari-bidhendi - Farzane Fakhrian - Behrouz Minaei-bidgoli .....	148