# The Third International Conference on Distributed Computing and HighPerformance Computing (DCHPC2024), $14^{th}$ - $15^{th}$ May 2024, Tehran, Iran.

## **Conference Program**

Conference web site: www.iahpc.ir

## Tuesday, May 14, 2024

Main Session Link: https://ipm.fararoom.ir/ch/main-session/guest

Time*	Event	Venue
09:15-09:45	Opening	Main
		Session
09:45-10:35	Keynote Speaker: Prof. Behrooz Parhami, University of California, Santa	Main
	Barbara, USA	Session
	Title: Fixed-Degree and Constant-Diameter Interconnection Networks for	
	Parallel Supercomputing	
10:35-10:45	A&Q	•
10:45-11:45	Workshop: <b>Dr. Hoshang Kolivand</b>	Main
	Impact of AI on mixed Reality.	Session
11:45-12:25	Workshop: Eng. Amir Mohammad Ghanbari	Main
	Container and Orchestraition	Session
12:30-13:30	Lunch & Break	
13:30-15:30	Online parallel Sessions	
15:30-16:20	Keynote Speaker: Prof. Alex Shafarenco, University of Hertfordshire,	Main
	Hatfield, UK	Session
	Title: Towards Efficient High-Throughput Computing: Harnessing Stateless	
	SISO Compnents and Flow Inheritance	

## Wednesday, May 15, 2024

Time*	Event	Venue
9:00-09:50	Workshop: <b>Dr. Aamar Wali</b> A Transfer-No-Transfer Learning Approach for Handwritten Pattern Recognition	Main Session
09:50-10:40	Keynote Speaker: <b>Prof. Satish Narayana Srirama,</b> School of Computer and Information Sciences, University of Hyderabad, India.  Title: A Decade of Research in Fog computing: Relevance, Challenges, and Future Directions	Main Session
10:40-10:50	Break	
10:50-12:30	Online parallel Sessions	
12:30-13:30	Lunch & break	•
13:30-14:20	Workshop: <b>Eng. Niladri Mahapatra</b> Design Thinking	Main Session
14:20- 14:30	Closing	Main Session

<sup>\*</sup>Note: Tehran, Iran time is 3:30 hours ahead of Greenwich Mean Time (GMT).

## The Third International Conference on Distributed Computing and HighPerformance Computing (DCHPC2024), 14<sup>th</sup> -15<sup>th</sup> May 2024, Tehran, Iran.

Online Parallel Session Name: Main Session

Session Chair: Dr. Aamar Wali

Session date: *Tuesday, May 14, 2024* Session Time: 13:30-15:30 PM.

Session Link: https://ipm.fararoom.ir/ch/main-session/guest

ID	Title	Presenter	Time
75	Promoting Cybersecurity Knowledge via Gamification:	Fatokun Faith	13:30 - 13:50
	An Innovative Intervention Design	B.	
84	Contribution & Power of Virtual Reality in Corporate	Asefeh Asemi	13:50 - 14:10
	World: A Conceptual Review		
92	Optimizing Geophysical Workloads in High-	André	14:10 - 14:30
	Performance Computing: Leveraging Machine	Wyzykowski	
	Learning and Transformer Models for Enhanced		
	Parallelism and Processor Allocation		
117	Small Intestine Cancer Prediction using Deep	DR. Joe	14:30 - 14:50
	Learning: A Comparative Study of CNNs and RNNs	Prathap P. M.	
145	A Blockchain Mining Proof of Work Approach Based	Abbas Fadhil	14:50 - 15:10
	on Fog Computing Virtualization for Mobile	Mahdi	
	CrowdSensing		
74	Enhanced gray wolf optimizer for exploring social	Arash	15:10 - 15:30
	network communities	Khosravi	

Online Parallel Session Name: DC IEEE 01

Session Chair: Dr. Mehdi Dolati

Session date: *Tuesday, May 14, 2024* Session Time: 13:30-15:10 PM.

Session Link: https://ipm.fararoom.ir/ch/dc-ieee01/guest

ID	Title	Presenter	Time
69	Bitcoin price prediction based on financial data,	Masoud	13:30 - 13:50
	technical indicators, and news headlines sentiment	Arjmand	
	analysis using CNN and GRU deep learning algorithms		
79	Modeling and Verification of the Causal Broadcast	Leila Namvari	13:50 - 14:10
	Algorithm Using Colored Petri Nets	Tazehkand	
80	GPU-based Parallel Technique for Solving the N-	Mahmood	14:10 - 14:30
	Similarity Problem in Textual Data Mining	Fazlali	
85	Enhancing Software Effort Estimation with Ant Colony	Mahnaz	14:30 - 14:50
	Optimization Algorithm and Fuzzy-Neural Networks	Afshari	
87	A Novel Approach for Specification and Verification of	Leila Namvari	14:50 - 15:10
	Symmetric Distributed Algorithms Using SPIN	Tazehkand	

# The Third International Conference on Distributed Computing and HighPerformance Computing (DCHPC2024), $14^{th}$ - $15^{th}$ May 2024, Tehran, Iran.

Online Parallel Session Name: DC ISC 01

Session Chair: Prof. Mojdeh

Session date: *Tuesday, May 14, 2024* Session Time: 13:30-15:10 PM.

Session Link: https://ipm.fararoom.ir/ch/dc-isc01/guest

ID	Title	Presenter	Time
65	A method to predict academic performance with	Arash	13:30 - 13:50
	Combination of XGboost and Random Forest	Khosravi	
66	An Evaluation of Collaborative-Filtering Algorithms for	Arash	13:50 - 14:10
	Job Recommender Systems	Khosravi	
70	High Performance Computing (HPC) System Security:	Sara Koleini	14:10 - 14:30
	Threats and Vulnerabilities, Challenges and Solutions		
73	generalized 2-rainbow domination in graphs	Mojtaba	14:30 - 14:50
		Ghanbari	
88	Improved Model of Secure Data Transmission	Fatemeh	14:50 - 15:10
	in Blockchain-Based Supply Chain by Integrating	Zarrin Bin	
	Merkel Tree and Neural Networks		

## The Third International Conference on Distributed Computing and HighPerformance Computing (DCHPC2024), 14<sup>th</sup> -15<sup>th</sup> May 2024, Tehran, Iran.

Online Parallel Session Name: Main Session

Session Chair: Dr. Mohanad R. Aljenabi

Session date: Wednesday, May 15, 2024 Session Time: 10:50-12:30 AM.

Session Link: https://ipm.fararoom.ir/ch/main-session/guest

	Title	Presenter	Time
94	Rational Jacobi Kernel Functions: A novel massively	Mahdi	10:50 - 11:10
	parallelizable orthogonal kernel for support vector	Movahedian	
	machines	Moghaddam	
95	Enhancing Energy Efficiency of Underwater Sensor	Babak Nouri	11:10 - 11:30
	Network Routing Aiming to Achieve Reliability	Moghadam	
98	Image Thresholding Based on Sailfish Optimizer	Nasrin Aghaee	11:30 - 11:50
	Algorithm	Maybodi	
99	Multi-hop Attention-based Graph Pooling: A	Parsa	11:50 - 12:10
	Personalized PageRank Perspective	Haddadian	
105	Analyzing Complex Contagion Effects in Donation	Parham	12:10 - 12:30
	Diffusion: A Hybrid Network Science and Neural	Ghanemipour	
	Network Approach		

Online Parallel Session Name: DC IEEE 01

Session Chair: Dr. Mehdi Dolati

Session date: Wednesday, May 15, 2024 Session Time: 10:50-12:30 AM.

Session Link: https://ipm.fararoom.ir/ch/dc-ieee01/guest

ID	Title	Presenter	Time
115	Enhancing the Performance of Photonic Crystal AND	Alireza	10:50 - 11:10
	Gates with Machine Learning Optimization	Mohammadi	
118	IoT-Based Intelligent Transportation System for	Mohammadreza	11:10 - 11:30
	Passenger-Shuttle Taxi Matchmaking	Zamani	
120	Neural Network-Driven Optimization of Photonic	Alireza	11:30 - 11:50
	Crystal-Based All-Optical NOT Gate Design	Mohammadi	
130	An Adaptive Task Scheduling Approach for Cloud	Amir Kalbasi	11:50 - 12:10
	Computing Using Deep Reinforcement Learning		
137	Design and Simulation of a NAND Gate based on 2D	Mehdi Bagheri	12:10 - 12:30
	Photonic Crystals		

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Online Parallel Session Name: DC ISC 01

Session Chair: Dr. Nazemi

Session date: Wednesday, May 15, 2024 Session Time: 10:50-12:30 AM.

Session Link: https://ipm.fararoom.ir/ch/dc-isc01/guest

ID	Title	Presenter	Time
96	A review of Energy Efficient Routing Protocols in	Mehran Tarif	10:50 - 11:10
	Underwater Internet of Things		
106	A hybrid Method based Support Vector Machine	Narmin	11:10 - 11:30
	Algorithm and Naïve Bayesian Algorithm for	Ghader	
	Authorship Identification		
107	Modeling and Verifying a Fully Anonymous Mutual	Leila	11:30 - 11:50
	Exclusion Algorithm Using Colored Petri Nets	NamvariTazeh	
		kand	
125	اخگر: مدیریت هزینه آگاه شروع سرد توابع زنجیره ای در مدل تابع	Amir Kalbasi	11:50 - 12:10
	به عنوان خدمت در رایانش ابری آ		
131	Microservice Testing Speed-up Using Test	Mohammad	12:10 - 12:30
	Parallelization and Mocking	Moein Nasr	
		Khademli	