2026 IEEE 12th International Conference on High Performance and Smart Computing (HPSC 2026)

New York City, New York, USA
8-10 May 2026

IEEE Catalog Number: CFP26VK2-POD
ISBN: 979-8-3195-3241-1

IEEE Advancing Technology for Humanity

Copyright © 2026, IEEE

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:	CFP26VK2-POD
ISBN (Print-On-Demand):	979-8-3195-3241-1
ISBN (Online):	979-8-3195-3240-4

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
Web:	www.proceedings.com



TABLE OF CONTENTS

Recursive Modeling Epistemic Networks (RMEN): Differentiable Higher-Order Theory of Mind for Interactive Human-AI Collaboration 1
Hossein Jamali, Sergiu M. Dascalu, Frederick C. Harris

swFleCSI: A Multiphysics Simulation Framework for Heterogeneous Many-Core Platforms 7
Jingyu Guo, Yifei Yang, Wu Ye, Xuezheng Liu, Di Wu

TFlare: A Task-Level Framework for Supporting Diverse Applications on Domestic Heterogeneous Supercomputers 13
Jiawei Chen, Wu Ye, Jingyu Guo, Xuezheng Liu, Di Wu

RAQET: a Reconfigurable Accelerator for QNNs Efficient Training 19
Samuel Farid, Taj Abdin, Hamidreza Imani, Tarek El-Ghazawi

Optimization of the Generation Phase in Post-Training of Large Language Models Based on RLHF 25
Chao Zhang, Meng Wan, Jue Wang, Kai Li, Yangang Wang, Rongqiang Cao

Diverse Embedding Graph Attention Networks for Personalized Federated Learning 33
Xiao Chen

Data-Driven Credit Risk Analysis with Governance Compliance Using Metadata-Enhanced Machine Learning Models 39
Vikrant Sikarwar, Amit Kumar Meshram

Stock Price Prediction Using Time Series Forecasting Model Used HDFC Banking Dataset 46
Vikrant Sikarwar, Amit Kumar Meshram

TIKL-GRACP: A Context-Aware Transport Augmentation for AI-Driven and Virtualized Networks 52
Sreenivas Chandran, Sathya Venkitapathy, Revathi Venkataraman

Optimized Delta Creation Architecture for Firmware Updates in Multi-Server Platform 60
Chirag Garg, Manali Arora, Jungmin Lim

AI-Powered Frameworks for Identifying, Monitoring, and Predicting Care Gaps Across Healthcare Systems 66
Jaswinder Kaur Dhillon

Ddg: Domain-Knowledge Distilled Dual-Gating for Event-Driven Stock Prediction 74
Tian Gou, Zhenglie Sun, Jingqi Sun, Hanwen Wang, Yangang Wang, Boyao Zhang

Communication-Efficient Training of Large Language Models with 1-Bit Allreduce for ZeRO 80
Wenqi Liu, Yihao Xie, Chunbao Zhou, Boyao Zhang, Ningming Nie

Predictive Analytics in E-Commerce: A Data-Driven AI Approach to Transaction Forecasting 86
Anath Bandhu Chatterjee

Crashspot: A Geospatial Data Science Approach to Analyzing Traffic Accident Hotspots 92
Himal Ranabhat, Prasanthi Sreekumari

Supercomputing and Quantum Key Distribution: Theoretical Framework 97
Sanaa A. Sharaf

Responsible AI in CRM Applications: Balancing Automation and Human Judgment in AI-Enabled CRM Workflows 106
Nidhi Sharma

A Reinforcement Learning and Graph Topology Combination Approach to Improving Underwater Sensor Network Parameters 111
Kumar Divyendra, Farokh Bastani