Foreword to the ICCPS 2024 Proceedings
Message from the Program Chairs

We present the proceedings of the 15th Annual ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS), which was held as part of the CPS-IoT Week 2024.

ICCPS is acclaimed for its pivotal role in forwarding the research, development, and integration of cyber physical systems. Covering theories, methodologies, applications, systems, experiments, and real-world integrations, the conference emphasizes the establishment of core principles, and the development of technologies, tools, architectures, and infrastructure that facilitate the convergence of cyber and physical components.

This year, we introduced two specialized tracks alongside the general submissions: Safe Learning-Enabled CPS, focusing on AI and ML safety in critical environments, and CPS Industrial Applications, spotlighting pioneering industrial practices in CPS. Of the 85 papers submitted, 24 were selected for publication, achieving a 28% acceptance rate. The review process began with a two-week period of detailed peer evaluation conducted by the Program Committee, consisting of 85 members. Following this in-depth discussion, the majority of submissions received an average of four high-quality reviews. These evaluations focused on each paper's potential future impact on the CPS community, its topical relevance, and its contribution to the coherence and diversity of the conference program, thereby ensuring each selected paper adhered to our high standards of peer review. This thorough review process reflects our commitment to upholding excellence and ensuring integrity in the scholarly discourse within the CPS community.

This year's ACM/IEEE ICCPS program is organized into six technical sessions alongside an engaging poster/demo session, which spotlights cutting-edge developments, late-breaking work or interactive demonstrations. The technical sessions cover a range of topics in CPS foundations and systems including verification and control of CPS, learning-enabled CPS, security, human-centered and medical CPS, middleware and software for CPS, autonomous vehicles and transportation. A session is dedicated to showcasing industrial CPS innovations, featuring contributions from professionals in the field. The poster/demo session includes 10 innovative accepted submissions.

The orchestration of ACM/IEEE ICCPS 2024 is a testament to the collaborative spirit and effort and dedication of a wide-range of volunteers from the growing CPS community. We thank the members of the ICCPS 2024 Organizing Committee who have worked with us throughout the year to ensure a successful program for the conference. Invaluable insights and leadership was provided by the General Chairs, Abhishek Dubey and Lu Feng. The dissemination of our call for papers and the global engagement it garnered can be attributed to the diligent efforts of our Publicity Chairs, Parasara Duggirala, Zhihao Jiang, and Sadegh Soudjani. Our web, and social media presence, an indispensable conduit for information and updates, was maintained with exceptional diligence by Web Chairs, Xugui Zhou and Kuk Jin Jang. Our gratitude extends to Truong Nghiem, the Publication Chair, who has ensured the integrity and quality of these proceedings. The Poster/Demo session, an essential component of our program, was adeptly curated by Rahul Bhadani and Jing Shuang (Lisa) Li, providing a platform for emergent ideas and interactive discussions. The artifact evaluation has become an integral component of the ICCPS framework, ensuring the reliability and repeatability of research results. We also extend our gratitude to our Artifact Evaluation

Chairs, Daniel Fremont and Radoslav Ivanov, for their leadership and collaboration with the evaluation committee in scrutinizing the submitted artifacts. This year, the evaluation process placed a heightened focus on the repeatability of findings, a critical factor in the nomination and selection of candidates for the best paper award.

Our heartfelt thanks go to the Program Committee for their meticulous reviews and constructive feedback, vital for the shepherding of submissions. We are equally thankful to the ICCPS Steering Committee for their strategic guidance and enduring support. Lastly, our sincere appreciation goes to all the authors and participants whose active engagement is the cornerstone of ICCPS.

Madhur Behl and Necmiye Ozay
ACM/IEEE ICCPS 2024 Program Co-Chairs