**IEEE ICHMS 2020 Conference Report**

The first brand new IEEE International Conference on Human-Machine Systems (ICHMS 2020) sponsored by IEEE SMC society was held in September 2020. While the conference was planned to be held in Rome (6-8 April 2020), it was then postponed to 7-9 September 2020 and finally held online due to pandemic COVID-19. Nonetheless, the conference was attended on-line by almost 150 international attendees.

The scope of ICHMS 2020 includes the research and development fields of Human-Machine Systems. Such fields include integrated human/machine systems at multiple scales, specifically human/machine interaction, cognitive ergonomics and engineering, assistive/companion technologies, human/machine system modeling, testing and evaluation, and fundamental issues of measurement and modeling of human-centered phenomena in engineered systems.

The organization of ICHMS was based on the following Track types:

* 1 Conference Theme Track, entitled Human-Centered Cyber-Physical Systems;
* 7 Regular Tracks: Companion Technology, Brain-Machine Interfaces and Systems, Human-AI Interaction and Cognitive Computing & Engineering, Interactive and Wearable Computing and Systems, Collaborative Intelligent Systems and Applications, Human Factors Engineering, and PhD Track;
* 8 Special Tracks (selected through a call): BEhavINg coGnitive Systems: Believable, Autonomous, Adaptive, Context Aware (BEINGS), Intelligent Computational Edge (ICE), Human Interaction in Ambient Intelligence (HiAmi), Human Performance measures and enhancements (HPME), TRustable Internet of Things (TRIO), Interactive Optimization: Theory, Methods and Applications (IntOpt), Adaptive Technologies for Human-Machine Social Systems: Successes and Failures (ATHMSS), and Standards in Human-Machine System (SHMS).

Our conference theme was therefore Human-Centered Cyber-Physical Systems. Following this theme, the conference provided a forum for researchers and practitioners involved in different but related domains to confront research results and discuss key problems.

The ICHMS 2020 Program Committee developed an exciting technical schedule including three keynote speeches by internationally recognized researchers (Cristiano Castelfranchi from ISTC-CNR – Italy, Julie A. Adams from Oregon State University - USA, and Stephen Brewster from University of Glasgow - UK) in the related areas, 22 technical sessions with over 126 paper presentations. The proceedings contain 126 papers coauthored by 457 researchers from 43 countries.

I would like to thank all the co-chairs and members of the Program Committee for their efforts in putting together a comprehensive program. Special thanks are due to the authors who all contributed excellent papers to this conference. This conference would not have been possible without your dedication and support. I also thank and express gratitude to the chairs and members of the Organizing Committees, especially Antonio Guerrieri, for managing the conference details with great efficiency and support during the COVID-19 period.

Giancarlo Fortino  
General Conference Chair