**IEEE SC Hyper-Intelligence TC Newsletter**

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## Technical Activities: International Conference Organization

We are organizing a variety of technical activities related to the theme and different aspects of hyper-intelligence. A series of IEEE international conferences that HITC is actively involved in this year include:

- The 2022 IEEE Smart World Congress (SmartWorld 2022) http://www.ieee-smart-world.org/

- The 7th IEEE Cyber Science and Technology Congress (CyberSciTech 2022) http://cyber-science.org/2022/cyberscitech/;

- The 20th IEEE International Conference on Pervasive Intelligence and Computing (PICom 2022 http://cyber-science.org/2022/picom/;

- The 8th IEEE International Conference on Cloud and Big Data Computing (CBDCom 2022) http://cyber-science.org/2022/cbdcom/;

- The 20th IEEE International Conference on Dependable, Autonomic & Secure Computing (DASC 2022) http://cyber-science.org/2022/dasc/

- The 8th IEEE International Conference on Smart Data (SmartData 2022), http://www.ieee-cybermatics.org/2022/smartdata/index.php;

- The 15th IEEE Conference on Internet of Things Computing (iThings-2022), http://ieee-cybermatics.org/2022/ithings/index.php;

- The 15th IEEE International Conf. on Cyber, Physical and Social Computing (CPSCom 2022), http://ieee-cybermatics.org/2022/cpscom/index.php;

- The 18th IEEE International Conference on Green Computing and Communications (GreenCom 2022), http://ieee-cybermatics.org/2022/greencom/index.php;

- The 5th IEEE International Conference on Blockchain (Blockchain 2022), http://www.blockchain-ieee.org/index.php;

- The 10th IEEE Cybermatics Congress (Cybermatics 2022) http://ieee-cybermatics.org/2022/cybermatics/

- The 16th International Conference on Multimedia and Ubiquitous Engineering (MUE2022), http://www.mue-conference.org/2022/;

- The 17th International Conference on Future Information Technology (FutureTech2022), http://futuretech-conference.org/2022/.

During these conferences, several famous scientists and distinguished researchers will be invited to give keynote speeches, to share their latest technical achievements, specific working experience, distinctive life perception, regarding key aspects closely related to hyper-intelligence in both academic and industrial fields.

## Technical Activities: Workshops and Special Sessions Organization

- The 15-th International Workshop on Bio and Intelligent Computing (BiCOM-2022), http://voyager.ce.fit.ac.jp/conf/BiCOM/2022/index.html

- Special Session on "Hyper-Intelligence in Cyber-Physical Systems" at the 16th Annual IEEE International Systems Conference (SYSCON 2022), https://2022.ieeesyscon.org/

- 7th Special Session on "Intelligent and Contextual Systems"at the 14th Asian Conference on Intelligent Information and Database Systems (ACIIDS2022), http://www.icxs.pwr.edu.pl/

- Special Session 4: Data Fusion for Industry 4.0 at the 25th International Conference on Information Fusion (FUSION 2022) https://www.fusion2022.se/

## Journals and Special Issues

It is our great honor that our special issue proposals have been approved in various journals:

- *ACM Transactions on Sensor Networks.*
  *Special Issue on Distributed and Collaborative Learning Empowered Edge Intelligence in Smart City.*
  Guest Editors: Drs. Xiaokang Zhou, Vincenzo Piuri, and Henry Leung

  This special issue aims at attracting g novel research works that are related to emerging theories, techniques, and algorithms in distributed learning (DL) and collaborative learning (CL) for edge intelligence enabled system design and application development in modern smart cities.
  https://dl.acm.org/pb-assets/static_journal_pages/tosn/pdf/ACM_TOSN_CFP1210-1640635690003.pdf

- *IEEE IoT Journal.*

*Special Issue on Smart Blockchain for IoT Trust, Security and Privacy.*
Guest Editors: Drs. Xiaokang Zhou, Yan Zheng, Yan Zhang, and Stephen Yau.

Smart blockchain extends traditional blockchain technologies with cutting-edge artificial intelligence (AI), offering high-level economy, adaptivity and autonomy to a blockchain system. Compared with traditional blockchain techniques, smart blockchain brings extra features to blockchain systems through data mining, pattern recognition, machine learning and deep learning on the top of existing blockchain technologies, which show a great potential to benefit the modern IoT systems. Recently, tremendous efforts have been made to explore smart blockchain technologies for solving IoT TSP issues, related to different application fields including cyber security, smart city, smart grid, wireless sensor networks, mobile communications, crowdsourcing/crowdsensing, cyberphysical-social systems, and so on. However, there are still open research problems and challenges for smart blockchain empowered TSP of IoT:1) What are the key requirements of TSP in smart blockchain solutions toward modern IoT systems? 2) What are the key algorithms in smart blockchain platforms for IoT TSP? And 3) How to realize key applications of smart blockchain with TSP concerns in diversified IoT environments?

https://ieee-iotj.org/wp-content/uploads/2022/05/IEEEIoT-SmartBlockchain-TSP.pdf

- *MDPI Applied Sciences Journal.*
  *Special Issue on Edge Computing Communications.*
  Guest Editors: Drs. Feng Zeng, Jinsong Wu, and Wenjia Li.

  This special issue invites topics broadly across advanced models, algorithms, and technologies for emerging edge computing, including frameworks and models for edge computing applications, algorithms for resource management and computation offloading in edge computing, game-based analysis for the participants in edge computing, machine learning, deep learning and federated learning for edge computing, offloading and scheduling strategy for edge intelligence, energy-efficient and green computing for edge computing, and security and privacy for edge computing.

  https://www.mdpi.com/journal/applsci/special_issues/Edge_Computing_Communications

- *MDPI Electronics Journal.*
  *Special Issue on Advance in Multi-Media Network Transmission.*
  Guest Editors: Drs. Bo Zhang, Xun Shao, and Zhi Liu.

  The objective of this Special Issue is to attract the latest research results dedicated to multimedia transmission This Special Issue will bring leading researchers and developers from both academia and industry together to present their novel research on multimedia network transmission.

  https://www.mdpi.com/journal/electronics/special_issues/MNT_electronics

- *IEEE Internet of Things Journal.*
  *Special Issue on Green IoT for Future Space-Air-Ground-Ocean Integrated Networks and Applications.*
  Guest Editors: Drs.  Bo Rong, Mohamed Cheriet, Jon Montalban, Lei Shi, and Yi Qian.

  The goal of the special issue is to raise the research attention on green IoT and promote the principle of energy efficiency in the design of future SAGOI (space, air, ground, and ocean integrated) IoT.
  https://ieee-iotj.org/wp-content/uploads/2022/01/SI-CFP-Green-IoT-for-FutureSAGO-20211222.pdf

- *IEEE/ACM Transactions on Computational Biology and Bioinformatics.*
  *Special Issue on Deep Learning-Empowered Big Data Analytics in Biomedical Applications and Digital Healthcare.*
  Guest Editors: Drs. Xiaokang Zhou, Carson Leung, Kevin Wang, and Giancarlo Fortino.

  The goal of the special issue is to collect novel works exploring the possibility of deep learning and big data analysis technologies in the fields of biomedical applications and healthcare.
  https://www.computer.org/digital-library/journals/tb/call-for-papers-special-issue-on-deep-learning-empowered-big-data-analytics-in-biomedical-applications-and-digital-healthcare

**HITC Member Update**

We are excited to announce that more experts have joined HITC as either part of the Technical Board or as a member.  Currently, there are 56 members in the Technical Board, and there are 95 HITC members. We always look forward to welcoming new members to join HITC! The completed list of HITC members can be found at the link below.

https://ieee-hyperintelligence.org/member

**HITC Newsletter Editors**

Dr. Xiaokang Zhou, *Shiga University, Japan*

Dr. Wenjia Li, *New York Institute of Technology, United States*

Dr. Claudio Miceli de Farias, *Federal University of Rio de Janeiro, Brazil*

Dr. Antonio Guerrieri, *ICAR-CNR, Italy*

We sincerely welcome more people to join the new TC for a collaborative effort and exploration to the novel but challenging field in Hyper-Intelligence. Please feel free to promote, and invite your colleagues and friends who are interested in it to apply to join HITC by: https://ieee-hyperintelligence.org/join_us