Call for Papers

Special Issue on

“Blockchain and Economic Knowledge Automation”

IEEE Transactions on Systems, Man, and Cybernetics: Systems

Blockchain, as an emerging decentralized architecture and distributed computing paradigm underlying Bitcoin and other cryptocurrencies, has attracted intensive attention in both research and applications recently. Blockchain, especially powered by chain-coded smart contracts, has the full potential of revolutionizing increasingly centralized Cyber-Physical-Social Systems (CPSS) for constructions and applications, and reshaping traditional knowledge automation workflows. The key advantage of blockchain technology lies in the fact that it can enable the establishment of secured, trusted and decentralized autonomous ecosystems for various scenarios, especially for better usage of the legacy devices, infrastructure and resources.

Blockchain is essential to knowledge automation, especially the economic knowledge automation including decision support systems research and intelligent economic modelling in blockchain-powered cryptocurrency systems. Knowledge automation can be considered as a novel direction for further development of Artificial Intelligence technology and a normal general framework for dealing with management and control of CPSS type complex systems. The goal of knowledge automation is from UDC to AFC, that is, dealing with issues of Uncertainty, Diversity and Complexity with capacity of Agility, Focus and Convergence.

Blockchain and knowledge automation have emerged as a dynamic and fast-growing research area. Many issues need to be addressed and further investigations are critical for future development. Therefore, to stimulate innovation in this new direction, the aim of this special issue is to call for the state-of-the-art works on blockchain and economic knowledge automation.

Topics of the special issue interests and focuses include, but not limited to

- Fundamental Theories and Approaches of Blockchain
- Distributed Consensus Algorithms
- Theories and Applications of Smart Contracts
- Integration of Blockchain and Internet of Things
- New Business Models of Blockchain Industries
- Data-driven Fin-tech Engineering with Decision Support Systems
- Economic Model and Decision Analysis of Cryptocurrency Systems
- Data Mining and Simulation Analysis of Blockchain-based Economic Systems
- Big Data and Trusted Computing
- Social Computing and Social Intelligence
- Theories and Approaches of Knowledge Automation
- Intelligent Information Processing and Knowledge Engineering
- Knowledge-based Intelligent Management and Control
Important Dates
Submission Deadline: June 1, 2018
Reviews Completed: August 30, 2018
Expected Publication Date: December 1, 2018

Manuscript and Submission
Preparation of manuscripts should refer to the guidelines in the “Author Information” on the IEEE Transactions on Systems, Man, and Cybernetics: Systems website:
http://www.ieeesmc.org/publications/transactions-on-smc-systems/information-for-authors

Submission for the special issue should be made through the Manuscript Central web site: https://mc.manuscriptcentral.com/systems. Authors should clearly indicate in the cover letter that this manuscript is submitted for the Special Issue on “Blockchain and Knowledge Automation”.

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