

The 2020 IEEE International Conference on Blockchain (Blockchain-2020)

<http://www.blockchain-ieee.org/>

Rhode Island, Greece, November 2-6, 2020

Introduction

As a promising technique to achieve decentralized consensus, blockchain has been successfully applied into digital currency, e.g., bitcoin, for serving as a public ledger for transactions. Its secure design for supporting a distributed computing system with high fault tolerance is attracting wide attention all over the world. Blockchain has a great potential to create new foundations for our socio-economic systems by efficiently establishing trust among people and machines, reducing cost, and increasing utilization of resources. On one hand, blockchain will play an important role for secure decentralization in such emerging fields as Internet of Things, Cyber Physical Systems, edge computing, social networking, crowdsourcing and next generation wireless communications, and even more other fields. On the other hand, its advance should be further evolved in terms of scalability, security, privacy, efficiency, flexibility, availability, real decentralization and high dependability.

Following the great success of IEEE Blockchain 2019, held in Atlanta, USA, IEEE Blockchain 2018, held in Halifax, Canada, the 2020 IEEE International Conference on Blockchain (Blockchain-2020) will provide a high-profile, leading-edge forum for researchers, engineers, and practitioners to present latest advances and innovations in key theories, infrastructure, schemes, and significant applications for the blockchain, as well as to identify emerging research topics and define the future.

Topics

The emergence and popularity of blockchain techniques will significantly change the way of digital and networking systems' operation and management. In the meantime, the application of blockchain will exhibit a variety of complicated problems and new requirements, which brings more open issues and challenges for research communities.

IEEE Blockchain-2020 will be held in November 2020, Rhode Island, Greece. The goal of this conference is to promote community-wide discussion identifying the advanced applications, technologies and theories for blockchain. We seek submissions of papers that invent novel techniques, investigate new applications, introduce advanced methodologies, propose promising research directions and discuss approaches for unsolved issues.

Topics of interest include, but are not limited to:

- Theories of blockchain and distributed ledger technology
- Distributed consensus and fault tolerance mechanisms
- Security, privacy and trust of blockchain and distributed ledger technology
- Decentralization, scalability, and security tradeoff
- Performance analysis and optimization
- Simulation and performance evaluation techniques
- Smart contract and chain code
- Applications and services based on blockchain

- Protocols and algorithms based on blockchain
- Blockchain in the Internet of things (IoT)
- Blockchain in cyber physical systems
- Blockchain in social networking
- Blockchain in supply chain management
- Blockchain in agriculture
- Blockchain in connected and autonomous vehicles
- Blockchain in crowdsourcing and crowdsensing
- Blockchain in mobile cellular networks
- Blockchain in edge and cloud computing
- Blockchain in next generation communications and networks

Submissions

All papers need to be submitted electronically through the conference website (<https://edas.info/newPaper.php?c=27350&track=101894>) with PDF format. Submitted papers must not substantially overlap with papers that have been published or that are simultaneously submitted to a journal or a conference with proceedings. Papers must be clearly presented in English, must not exceed 8 pages in IEEE Computer Society proceedings format (or up to 10 pages with the pages over length charge), including tables, figures, references and appendices. Papers will be selected based on their originality, significance, relevance, and clarity of presentation assessed by at least three reviewers. All submitted papers will be judged through **double-blind reviews, where the identities of the authors are withheld from the reviewers**. As an author, you are required to preserve the anonymity of your submission, while at the same time allowing the reader to fully grasp the context of related past work, including your own. Papers that do not conform to our double-blind submission policies will be rejected without review.

Submission of a paper should be regarded as a commitment that, should the paper be accepted, at least one of the authors will register and attend the conference to present the work. IEEE Blockchain 2020 reserves the right to exclude a paper from distribution after the conference (e.g., removal from the digital library and indexing services), if the paper is not presented at the conference. All accepted papers will be published in IEEE CPS proceedings (EI Indexed) and collected by IEEE Xplore Digital Library. Two outstanding papers will be selected to receive the Best Paper Awards.

Workshops and Special Sessions

Special Session on *Blockchain Network and Its Applications*

Workshop on *Recent Advances of Blockchain Technologies for Cybersecurity*

Workshop on *Blockchain Technology and its Potential Applications*

2nd International Workshop on *Advances in Artificial Intelligence for Blockchain*

Journal Special Issues

- MDPI Electronics (IF: 1.764)

Special Issue "Blockchain-based Technology for Mobile Application"

- IEEE Internet of Things Journal (IF: 9.515)

Special Issue: TBD

Publisher: IEEE, SCI indexed

- Digital Communications and Networks

Special Issue: TBD

Publisher: Elsevier, SCI indexed

- Security and Communication Networks (IF: 1.376)

Special Issue: Trustworthy Networking for Beyond 5G Networks

Publisher: SCI indexed (hindawi.com/journals/scn/si/908361/)

- IEEE/CAA Journal of Automatica Sinica

Special Issue: Blockchain for Internet-of-Things and Cyber-Physical Systems: Emerging Trends, Issues and Challenges

Publisher: IEEE

- Future Generation Computer Systems (IF: 5.768)

Special Issue: Artificial Intelligence for Cyber Defence and Smart Policing

Publisher: Elsevier, SCI indexed

- Information Fusion (IF: 10.716)

Special Issue: Data Fusion for Trust Evaluation

Publisher: Elsevier, SCI indexed

Important Dates

Workshop Proposal Due: May 15, 2020

Paper Submission Deadline: June 15, 2020

Author Notification: July 31, 2020

Final Manuscript Due: September 02, 2020

Conference Date: November 02-06, 2020

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