

The First International Symposium on Recent Advances of Blockchain Evolution: Architecture, Intelligence, Incentive, and Applications (BlockchainEvo 2022)

Summary

Blockchain, as a disruptive technology, has attracted widespread attention from both academia and industry. It has been applied into a variety of fields, including finance, governance, healthcare, supply chain, transportation, and so on. It is promising to establish a truly decentralized, transparent, and accountable environment, where blockchain and other cutting-edge technologies will play an essential role. Despite the benefits and great potential of blockchain, current blockchain technologies still suffer from a number of severe problems, e.g., insufficient trust and security, low efficiency, poor scalability, low throughput, high energy consumption, lack of privacy preservation, threats caused by malicious behaviors, and the difficulty of complicated smart contract implementation. Hence, there is an urgent demand on blockchain evolution, including its architecture, consensus mechanism, incentive mechanism, as well as the theories to integrate blockchain with other emerging technologies, such as machine learning, optimization algorithms, edge computing, and scalable computing. The recent advances of artificial intelligence have offered opportunities to detect anomalies, optimize resources, and construct effective strategies. Furthermore, incentive mechanisms boost the participation willingness of system entities and promote intrinsic trust for blockchain, thereby greatly enhancing security. Obviously, the evolution of blockchain with regard to architecture, intelligence, and incentive will further extend its applications to wider fields.

This workshop aims to bring together recent advances on new architecture, algorithms with intelligence, incentive mechanisms, and so on for innovating blockchain to improve its overall performance, including trust, security, and privacy. It also encourages researchers to submit papers on original applications empowered by revolutionized blockchain.

Call for Papers

Topics of interests include, but are not limited to:

- New blockchain theories and technologies
- New architecture of blockchain
- Novel blockchain consensus and fault tolerance mechanisms
- Blockchain scalability issues and solutions
- Security, privacy and trust of new types of blockchain systems
- AI-enabled smart blockchain
- AI-enabled consensus mechanisms
- Intelligent quality assurance of smart contracts
- Intelligent resource allocation for blockchain
- Novel incentive mechanisms for blockchain
- Blockchain-based novel applications and services
- Blockchain and edge computing

- Blockchain in IoT, crowdsourcing and crowdsensing
- Blockchain in next generation communications and networks
- Blockchain and other emerging technologies

Submission link: <https://edas.info/N29474>

Important Dates

Submission Deadline: May 10th, 2022

Author Notification: June 10th, 2022

Camera Ready: June 25th, 2022

Submissions

Author Instructions

All papers need to be submitted electronically through the EDAS website (<https://edas.info/N29474>) 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 6 pages in IEEE Computer Society proceedings format (or up to 8 pages with the pages over length charge), including tables, figures, references and appendices. The limit length of accepted papers should be 6 pages with at most 2 extra page charge.

Papers will be selected based on their originality, significance, relevance, soundness of technology, 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 2022 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.

Guideline of Double-blind Submission

- Remove the names and affiliations of authors from the title page.
- Remove acknowledgments.
- Remove project titles or names that could be used to trace back to the authors via web search.
- Carefully name your files to anonymize author information.
- Carefully refer to related work, particularly your own. Do not omit references to provide anonymity, as this leaves the reviewer incapable of grasping the context. Instead, reference your past work in the third person, just as you would any other piece of related work by another author. For example, instead of "In prior work [1], we presented a scheme that ...," sentences in the spirit of "In prior work, Clark et al. [1] presented a scheme that ..." should be used. With this method, the full citation of the referred paper

can still be given, such as "[1] A. Clark", "Analysis of...", and it is not acceptable to say "[1] Reference deleted for double-blind review."

- The submitted manuscript or its title/abstract should not be posted on a public website, such as arxiv.org, or transmitted via public mailing lists.
- The submitted manuscript (PDF file) should be text-searchable. Any submission that does not meet this requirement may be returned without review.
- Many of the editing tools automatically add metadata to the generated PDF file containing information that may violate the double-blind policy. Please remove any possible metadata that can link your manuscript to you. This includes removing names, affiliation, license numbers etc. from the Metadata as well as from the paper. Failing to meet this requirement may also lead to a rejection without review.

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