

# EAI BlockTEA 2022 Program

21 November 2022 (Denmark Local Time, GMT+1)

**9.00-9.50am (Session Chair: Weizhi Meng)**

**Keynote:** Prof. SM Yiu, Professor and Associate Executive Director of HKU-SCF FinTech Academy, Department of Computer Science, The University of Hong Kong

**Title:** Blockchain and Central Bank Digital Currency (CBDC)

**Abstract:** Central Bank Digital Currency (CBDC) is coming. A lot of countries are already doing pilot studies. There is no agreed architecture for implementing CBDC as well as no agreed solutions to tackle issues related to CBDC. In this talk, we will first talk about the issues related to CBDC (e.g. privacy) and how it is related to the blockchain technology and may be some possible solution directions.

**9.50-10.00am**

Break

**10.00-11.00am (Session Chair: Weizhi Meng)**

ID-based self-encryption via Hyperledger Fabric based smart contract

Ilya Grishkov, Roland Kromes, Thanassis Giannetsos, and Kaitai Liang

Scalable Smart Contracts for Linear Regression Algorithm

Syed Badruddoja, Ram Dantu, Yanyan He, Abiola Salau, and Kritagya Upadhyay

Data Cooperatives for Trusted News Sharing in Social Media

Abiola Salau, Ram Dantu, Kritagya Upadhyay, and Syed Badruddoja

**11.00-12.00pm (Session Chair: Wei-Yang Chiu)**

SoK: Can NFTs Solve The Economic Problems of Countries with Ancient Heritage? Egypt as a Case Study

Shymaa Arafat

Combining ID's, Attributes, and Policies in Hyperledger Fabric

Daan Gordijn, Roland Kromes, Thanassis Giannetsos, and Kaitai Liang

A Secure Microgrid Power Transaction Scheme Based on Hyperledger Fabric

Shuihai ZHANG, Haoyi SUN, Bei PEI, and Chunli LV

**22 November 2022 (Denmark Local Time, GMT+1)**

**9.00-10.00am (Session Chair: Wei-Yang Chiu)**

An Outsourced Multi-Authority Attribute-Based Encryption for Privacy Protection with  
Dynamism and Audit

Zhifa Deng and Jiageng Chen

Privacy and Integrity Preserving Range Query for Tiered Mobile Internet of Things

Ning Wang, Wenxin Yang, Liang Liu, Lihong Fan, Xiaolin Qin, and Hang Gao

A Privacy-preserving and Auditable Scheme for Interfacing Public Blockchain with Consortium  
Blockchain

Zejun Lu and Jiageng Chen

**10.00-10.40am (Session Chair: Weizhi Meng)**

A Novel Fast Recovery Method for HT tamper in Embedded Processor

Wanting Zhou, Shiwei Yuan, Lei Li, and Kuo-Hui Yeh

MIA-Leak: Exploring Membership Inference Attacks in Federated Learning Systems

Chengcheng Zhu, Jiale Zhang, Xiang Cheng, Weitong Chen, and Xiaobing Sun