UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

IEEE

Department of Computer Science

Designing Financial Smart Contracts on Permissioned and Public Blockchains

ABSTRACT:

Blockchain technology, though still at its infancy, is disrupting current business models by making intermediary services obsolete and the term has become a buzzword worldwide. A lot of research is going on to harness its full potential in many fronts from small to large corporate businesses. Currently, the Collateral Contract Services (CCS) are manually processed in financial institutions. The main objective of this research is to choose the most appropriate financial instrument, specially derivatives, for CCS and allow its automated trading using Blockchain technology, which we have achieved on two prominent Blockchain platforms. In the first part of this talk formulating one of the derivatives, options, as a smart contract will be presented, wherein we have successfully generated and analyzed an options smart contract for Ethereum (public). Then, in the second part of the talk, designing a Chaincode for CCS is researched using Hyperledger Fabric (permissioned), maintaining a transparent distributed ledger for the CCS between financial institutions. Also, I will present some of the challenges in the formulation of the problem, design and implementation on blockchain and further steps in improving the performance of this design.

Dr. Ruppa Thulasiram

Computer Science
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Friday

October 18, 2019

2:30 – 3:30 PM

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Everyone welcome

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Light refreshments will be served