IEEE CCWC 2021
IoT Workshop

CCWC 2021 Workshop

Concepts of blockchains on IoT devices

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Objectives

Showing concepts of computing pseudo-blockchains using virtual Raspberry Pis.

These are not blockchains, but they are a related structures

We will cover basic principles of distributed computing
    Including working with basic virtualized Raspberry Pis

Methods and tools

QEMU virtual machines supporting ARM Raspberry Pis

- Mac
- Windows

Python 3 and several Python libraries

Outline

Path

Three parts

Highlighting differences between Microsoft Windows based machines and Apple Mac computers

Part 1: Install and test QEMU virtual machines

Part 2: Install and test Raspberry Pi Raspberries images

Part 3: The workshop

Building basic blockchains with two virtualized Raspberry Pis

Important notes

Do Parts 1 and 2 in advance!

Parts 1 and 2 should be done at least one day in advance of Part 3

Part 3 is the workshop itself, Parts 1 and 2 are advanced preparation

Parts 1 and 2 can take several hours

It is important to do them in advance

Copyrights and no liability

We leave it to the user to validate and check for security issues on all software

The systems you install, for this workshop, are at your own risk - we cannot assume any implicit or explicit responsibility for their behavior, risk, or damage.

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