NANYANG TECHNOLOGICAL UNIVERSITY
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School of Computer Science and Engineering
College of Engineering

Federated Deep Learning For Edge Computing

Creation of a federated learning platform for emulation

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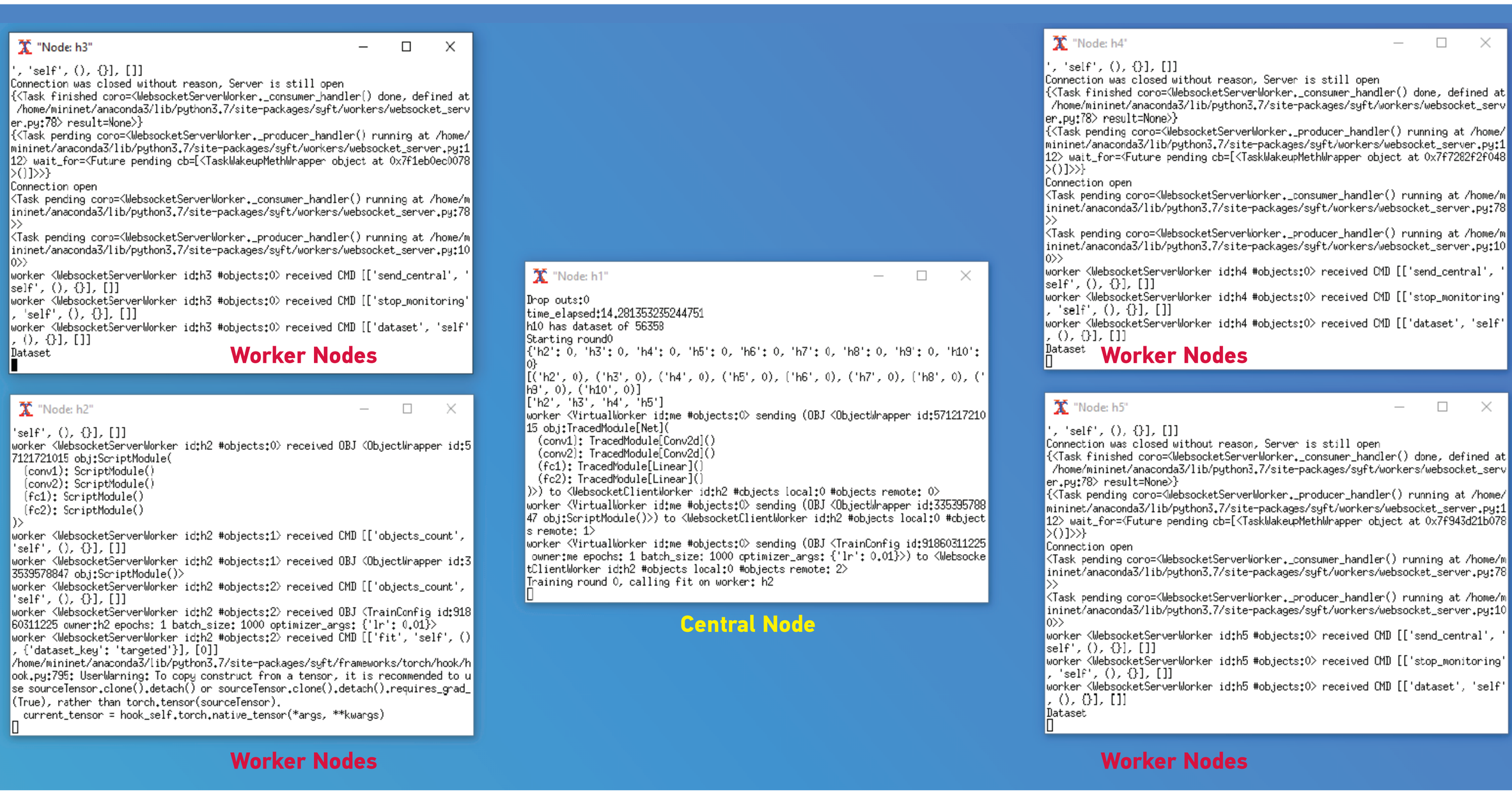

Project Objectives:

This project is the first part of a combined project. The aim is to create an efficient federated learning scheduling algorithm to reduce the cost of communication while maintaining model accuracy and low variance. In order to test this algorithm, an infrastructure that supports the network emulation and federated learning must be created.

Using Mininet virtual image and the PySyft federated learning library, a virtual image was created that supports testing of algorithms with the use of multiple nodes and different network capabilities