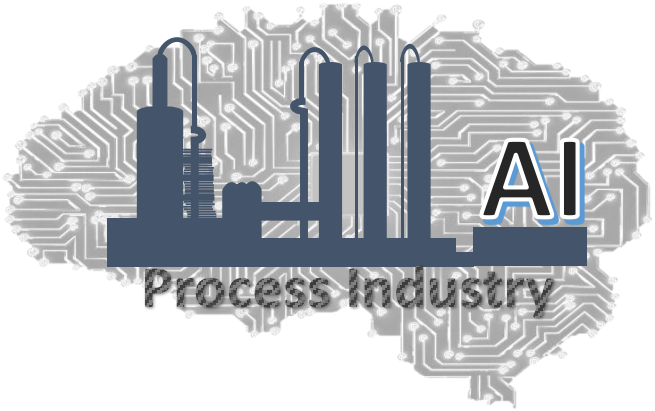
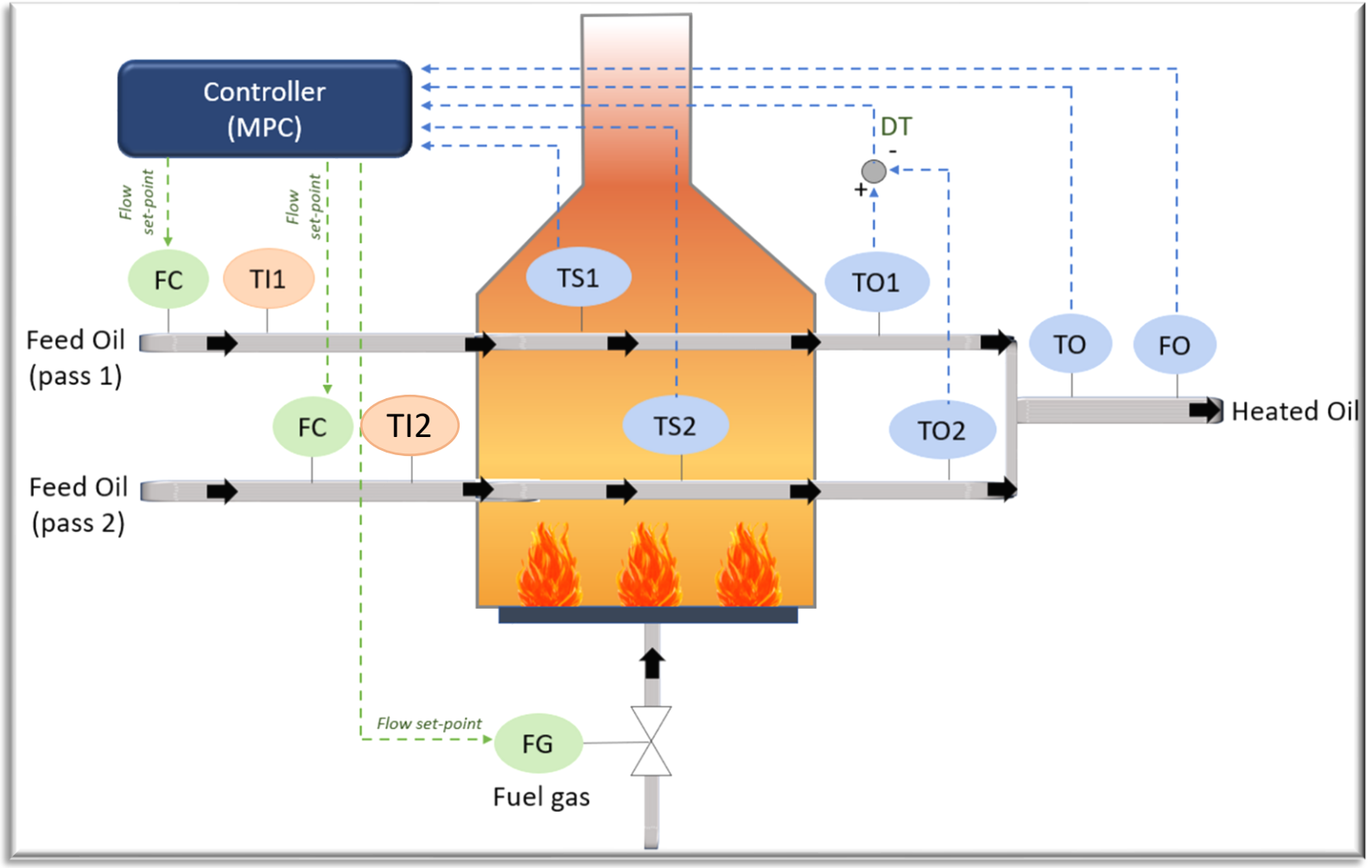
Statistical Techniques for Monitoring Industrial Processes



Topic : PLS-based Monitoring of Refinery Fired Heater

Module : Coding Exercise

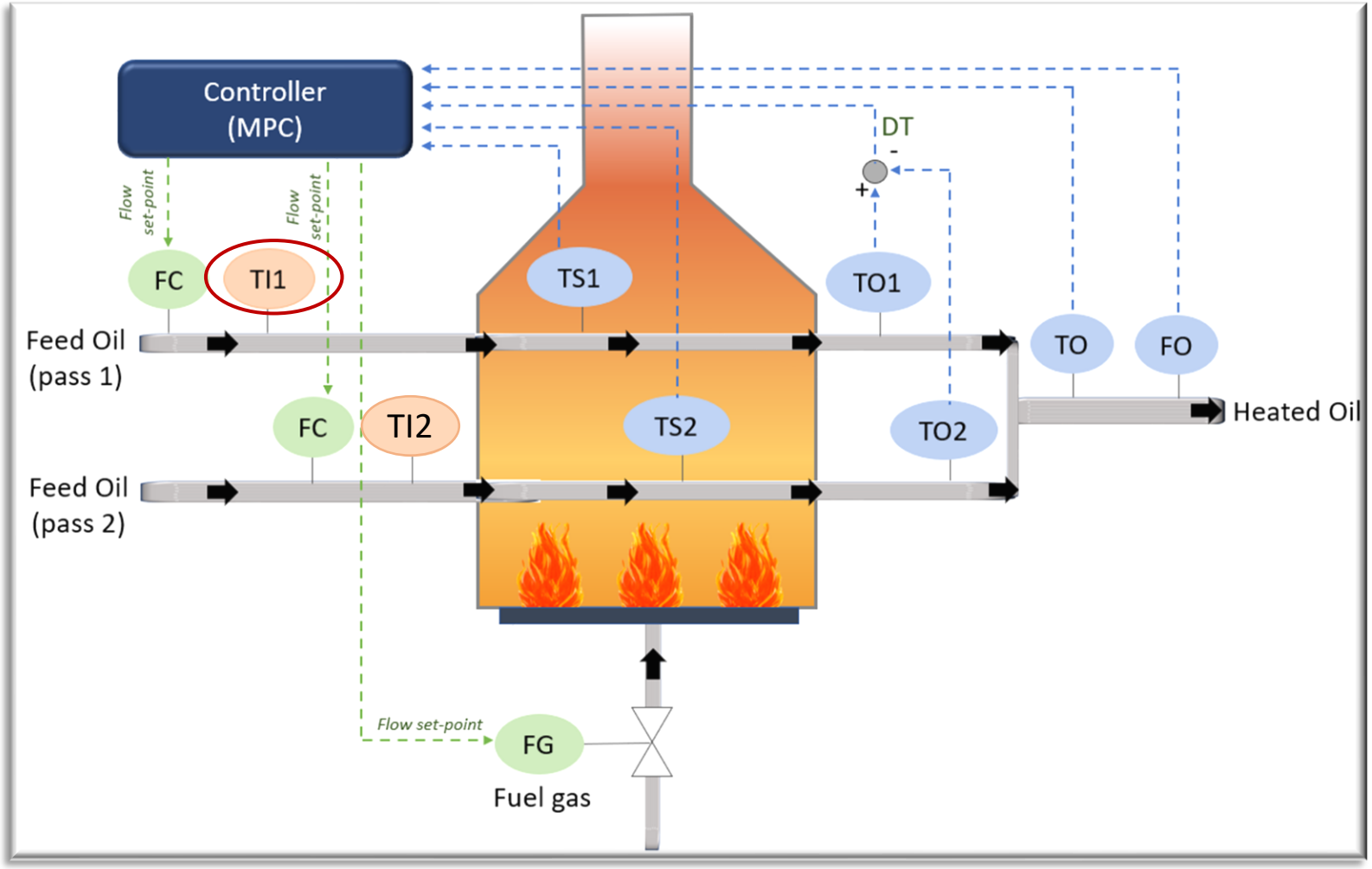
System: Fired Heater



- 2 days fault-free data with varying feed flow
- Data recorded every minute

System details: https://apmonitor.com/dde/index.php/Main/FiredHeaterSimulation

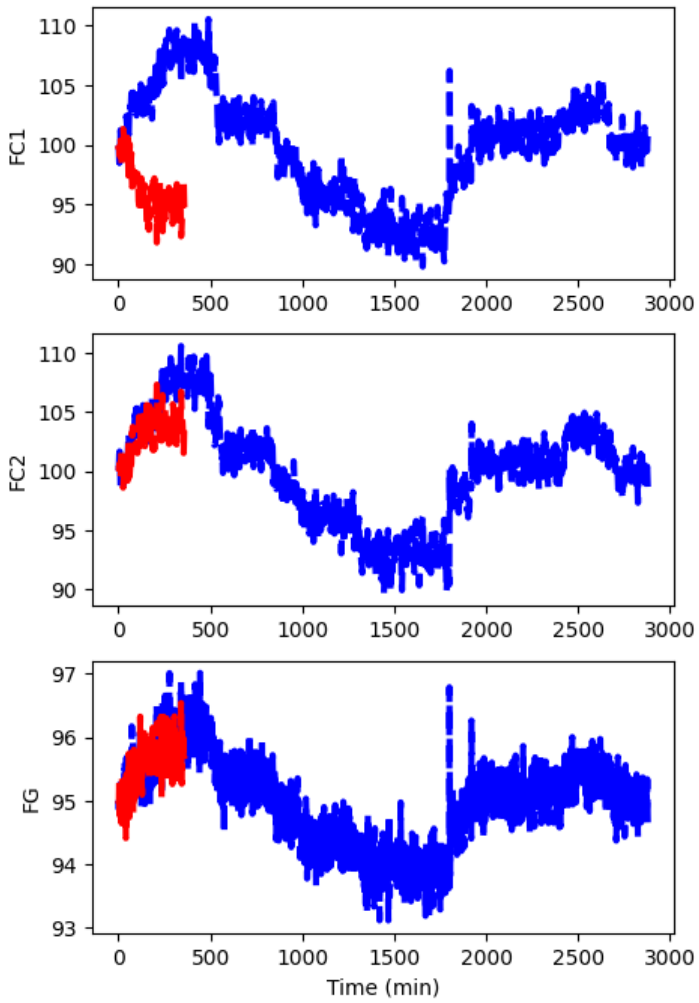
Fault Simulated



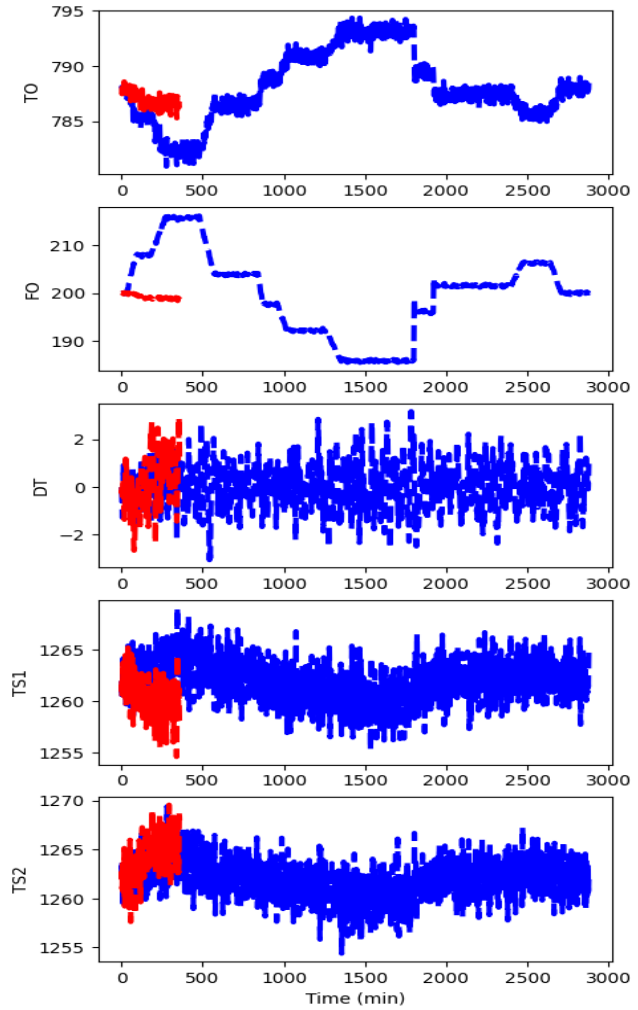
- 6 hours of data with fixed controlled variables' setpoints
- ~8% decrease in TI1

Fault-free VS Faulty Datasets

Manipulated Variables



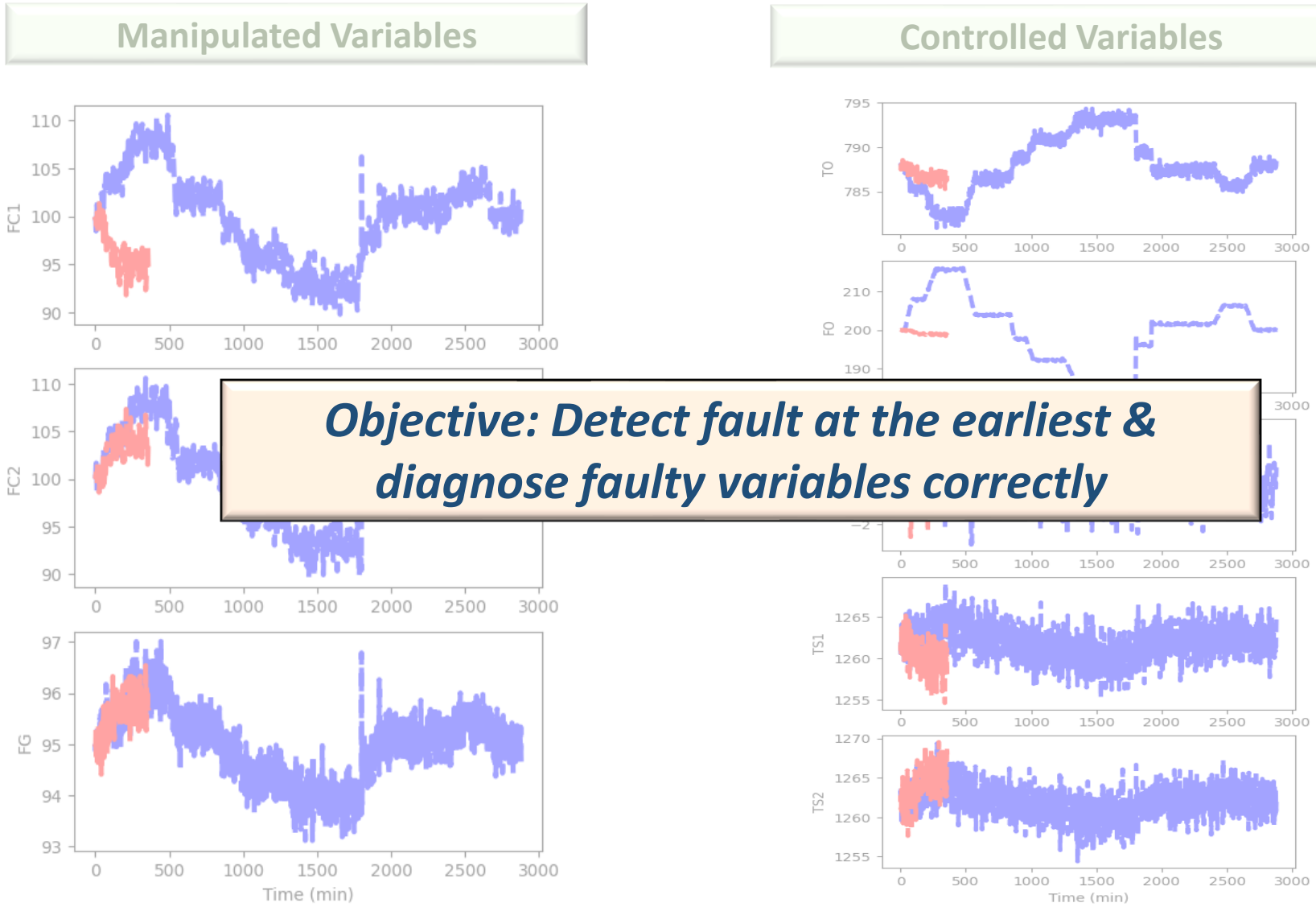
Controlled Variables



NOC samples

Faulty samples

Fault-free VS Faulty Datasets



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