ICCAD

International Conference on
Control Automation and Diagnosis

CALL FOR PAPERS
SPECIAL SESSION ON
Advances in Federated learning for condition monitoring of industrial processes
for ICCAD'23
May 10-12, 2023, Rome-Italy

Session Co-Chairs:

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Session description:

This special session addresses the problem of preserving data privacy in smart infrastructure condition monitoring systems while constructing data-driven learning models for health assessment. The papers, both theoretical and experimental, invited to this session will briefly address two main issues. The first is condition monitoring, which specifically targets the detection, diagnosis, and prognosis in industrial processes. The second is to consider the challenges of federated learning in doing so.

The goal is to discuss advanced algorithmic architectures in federated networks when solving federated learning problems in industrial process state monitoring.

The topics of interest include, but are not limited to:

- Datasets generation for condition monitoring in federated networks
- Fault detection and classification
- Remaining useful life prediction
- Privacy preservation of federated learning algorithms
- Federated learning for communication efficiency
- Federated learning for statistical heterogeneity
- Federated learning for systems heterogeneity

SUBMISSION

Papers must be submitted electronically for peer review by**: January 31, 2023**
Submission – ICCAD 2023 (iccad-conf.com)

All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).