CALL FOR PAPERS
SPECIAL SESSION ON
"Outliers in Control Engineering"
For CODIT'20
June 29 - July 2, 2020 ▪ Prague, Czech Republic

Session Chair:

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Session description

This special session deals with the problem of outliers in control engineering. The problem of anomalies in operation and in the variables associated with control loops is often neglected in the research. Assumptions about Gaussian properties and the use of the mean square error performance index hide the problem. In contrary, industrial reality has to deal with much more complicated properties. Operating control systems exhibit non-Gaussian, non-stationary, nonlinear and fractal properties, being impacted by disturbances of unknown origins. Finally, frequent human interventions, like retuning, manual operation, biasing, etc. add further complexity. This session is dedicated to that subject.

The goal is to present methods and approaches that may help in the detection, identification, analysis, interpretation and isolation of the outliers. Non-Gaussian properties require alternative approach to the controller design, tuning and analysis. Control Performance Assessment demands for robust measures. Complex and nonlinear approaches using fractional calculations, fractals, entropy and non-Gaussian statistics among the others is often used.

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

- Identification, interpretation and isolation of the outliers
- Fractal and persistence analysis
- Fractional calculus
- Non-Gaussian statistics
- Robust regression and statistics
- Non-linear controller performance
- Industrial control system design and analysis

SUBMISSION

Papers must be submitted electronically for peer review through PaperCept by **January24, 2020:** http://controls.papercept.net/conferences/scripts/start.pl.InPaperCept, click on the **CoDIT 2020 link "Submit a Contribution to CoDIT 2020" and follow the steps.**

IMPORTANT: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).

DEADLINES

January 24, 2020: deadline for paper submission

April 10, 2020: notification of acceptance/reject

May 7, 2020: deadline for final paper and registration