

SYSTEM IDENTIFICATION for MANUFACTURING CONTROL APPLICATIONS

Proposers:

**Vladimir Lototsky, Natalia Bakhtadze,
Kirill Chernyshov, Elena Jharko**

(V.A. Trapeznikov Institute of Control Sciences, Moscow, Russia)

Contacts: aitanoc@sicpro.org

The SIMCA Special Session is aimed to bring together scientists working in all branches of control theory to discuss, in the light of **manufacturing control problems**, system identification as a totality of methods, techniques, procedures, algorithms intended eventually to implement an iterative human involved process, where each stage of the process is intended to construct a mathematical model of the system under investigation in order to control the system by processing its input and output samples subject to technological, historical, methodological, environmental, heuristic knowledge associated with the system. The objective of this iterative process is to build an adequate system model based on observations. A model is considered adequate if its incorporation in the control system ensures the control meeting all pre-specified requirements.

Topics:

- mathematical problems, parameter and non-parametric identification
- structure identification and expert analysis, problems of selection and data analysis
- control systems with an identifier
- identification in intelligent systems
- simulation procedures and software for identification and modeling
- cognitive issues of identification
- verification and problems of software quality for complex systems
- global network resources of support processes of identification, modeling, and control

Important dates:

- Special session paper submission – December 15, 2017
- Notification on acceptance – January 30, 2018
- Final camera-ready paper submission – February 28, 2018

Under paper submission to this special session, please indicate the code:

3qvv7