

PURPOSE

In the last quarter century, industrial control systems have changed from analog to digital technology. Modern digital control systems calculate more quickly, have more memory, use distributed intelligence, and can be integrated into networks to optimize the control of processes. However, in the area of industrial applications, one thing remains consistent: the standard tool for process control continues to be PID control.

In principle, it might be concluded that PID is able to resolve all control problems, but in the practical operation of industrial processes, it is found that::

- Certain variables oscillate more and with higher frequency than is desirable.
- Others still require manual control or increased intervention by the operator.
- In many cases, processes do not function in a regular and stable way.

During the last few decades various methodologies have attempted to improve on PID control performance, raising high expectations in industry. Some important questions still remain however:

- Have these advanced control techniques achieved sufficient maturity and robustness in industrial environments?
- Are they simple, efficient and reliable?
- Are they capable of replacing PID as an industrial standard?
- What are the latest successful applications?

There is a wealth of knowledge and experience in the community of industrial control professionals available to provide answers to these questions.

SAICA07 aims to bring this collective professional knowledge together for the benefit of professionals who wish to share their realities and experience in an open-format forum, highlighting real practical advances, and disseminating a culture of true "state of the art" in the area of industrial process control.

IEEE

The Institute of Electrical and Electronic Engineers (IEEE) is an international professional organization that has more than 360,000 members in more than 150 countries worldwide. Dedicated to the theoretical and practical advancement of electric, electronic and software engineering, the IEEE has 38 societies, each specializing in a different knowledge area.

IAS-CSS JOINT CHAPTER (Spain)

The **Industrial Applications Society (IAS)** was founded in 1965 and is one of the 38 societies organized by IEEE. IAS aims to be a world leader in the advancement of technology and dissemination of technical information to support professionals engaged in the application of electrical, electronics, and process control engineering to industry.

The **Control Systems Society (CSS)** was founded in 1954 as a scientific, engineering and professional organization dedicated to the advancement of the theory and practice of systems and control in engineering.

The Spanish **IAS-CSS Joint Chapter** was approved by the IEEE in 2006 and aims to be the place for academic and industry professionals to meet and contribute to the organization's objectives.

KEY DATES

Submission of Summaries: 02 July, 2007
Notice of Acceptance: 03 September, 2007
Paper Submissions and Pre-registration: 01 October, 2007
Seminar: 05 & 06 November, 2007

Navigate to the Chapter Web site for more information about SAICA 2007:

www.ieee-ias-css.es



5 and 6 November, 2007

MADRID

2nd Seminar for Advanced Industrial Control Applications

SAICA 2007

ORGANIZED BY

- The IEEE IAS-CSS Joint Chapter of Spain
 - The Gómez Pardo Foundation

Collaborating Entities

- UPC, UNED, UPM and ISA



OBJETIVES

The SAICA07 seminar aims to provide a forum for people with practical knowledge of advanced industrial control applications to present, discuss and analyze their experiences.

The intention is to enable members from the professional community and interested researchers to share knowledge and experience which can be disseminated throughout the various industrial areas to overall common benefit.

SAICA07 will be run in English and Spanish, and papers submitted in English will be considered for publication in both IAS and CSS Magazines.

WHO IS THIS SEMINAR FOR?

- Professionals interested in process control and optimization
- Researchers and Professors from the area of automation and advanced process control
- Students looking to learn more about advanced process control and optimization

EXPERT PANEL

José Vicente Aguilar, C.H. Ebro
Francisco Arista, Cepsa
Pedro Balsa, Hunstman-Tioxide
Joan Bergas, CITCEA
Daniele Cadorín, Emerson
Javier Canal, ITP
Francisco Cifuentes, Repsol
Santiago España, Mahou
Ismael Figueroa, Cementos Avellaneda
Enrique Martínez, HPD
Diego Moldes, National Instruments
Roberto Montes, TSK
Juan Otero, Ciemat
César Platero Díez, Siemens
Jose Ramón Perán, Cartif
José Sanchez Villafranca, Endesa
Jesús Solís, Arcelor
Ken Slaven, Rescom
K-C Tran, Carbon Recycling International
Fernando Turcharte, ABB
Jesús Vallejo Barquín, Honeywell
Neil Brown, Real Time Engineering
Antoni Rovira, Rockwell

STRUCTURE

The seminar will take place on the 5th and 6th of November 2007, with a gala dinner provided on the Monday night. The seminar is divided into plenary conferences, presentation sessions and roundtable discussions. Plenary sessions currently confirmed:

"Control of Irrigation Canals: A Survey on Past and Present Solutions" presented by Dr. José Rodellar Benedé, Professor at the UPC

"The Industrial Benefits of Advanced Control" presented by Pedro Balsa, Director of Information Systems at Hunstman-Tioxide

LOCATION

Gómez Pardo Foundation
C/ Alenza, 1.
28003 Madrid

SUBMISSION OF PAPERS

To facilitate the uniformity of documentation, please follow the requested format found on the Joint-Chapter/Seminar web page, and follow generally IEEE publications standards.

Please send all summaries and papers to juanms@ieee.org.

THEMES/SECTORS

Applying Advanced Control To:

1. Chemical and Petrochemical Processes
2. Steel Production
3. Energy Generation
4. Electrical Machinery
5. Aeronautics
6. Robotics
7. Water and Environment
8. Cement Production Processes
9. Other Applications

SCIENTIFIC PANEL

Leonardo Acho, CITEDI-IPN (MX)
Pierre Apkarian, ONERA-UPS (FR)
Eduard Bertrán, U.P.C. (ES)
Valery Chirisanov, State University of Telecommunications (RU)
Georgi Dimirovski, Dogus University (TR)
Antonio Favela, ITESM (MX)
Jesús Fraile, U.P.M. (ES)
Enric Fossas, IOC-UPC (ES)
Fouad Giri, GREYC (FR)
Robert Griño: IOC-UPC (ES)
Joao Miranda Lemos, INESC-ID/IST (PT)
Juan Manuel Martín, U.N.E.D. (ES)
Eduardo Mosca, Università di Firenze (IT)
Luis Martínez Salamero, Universidad Rovira Virgili (ES)
Joseba Quevedo: UPC (ES)
Eduard Reithmeier, IMR-UH (DE)
José Rodellar, U.P.C. (ES)
Carlos Sagües: UZ (ES) Universidad de Zaragoza
Ricardo Sánchez-Peña: UPC (ES)
Daniel Sbarbaro: UC (Chile)
Manuel de la Sen: Univ. del País Vasco (ES)
Heinz Unbehauen, Ruhr-Universität Bochum (DE)
Josep Vehí, U.d.G. (ES)
Blas Vinagre: U de Extremadura (ES)

SECRETARIAT

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REGISTRATION

Please register online through www.ias-css-ieee.es.

The cost of the seminar is 200€, which includes: access to all seminar activities, the proceedings, and the gala dinner.

Discount: Attendees enrolling before September 15 have access to a 25% discount (50€ savings) if enrolment is completed before September 15, 2007. All students have access to a low, 80€ registration fee.

Payment: See registration form for payment details.