

SCOPE

The IFAC workshop on Advanced Process Control for Semiconductor Manufacturing 2006 will focus on the critical issues in control of semiconductor manufacturing identified in the reports Future Directions in Control, Dynamics and Systems (<http://www.cds.caltech.edu/%7Emurray/cdspanel/>) and the International Technology Roadmap for Semiconductors (ITRS) (<http://public.itrs.net>).

As described in ITRS, high performance feedback control will be needed to achieve the small length scales required for the next generation of microelectronic devices that are predicted (and hence demanded) by Moore's Law.

At the tool and process level, there are new methods and capabilities required to effectively use process and product measurements to impart control. Advanced process control addresses the use of sensors, metrology, and algorithms to monitor equipment, processes and products to provide actionable information for maintenance and control. The successful application of advanced process control in semiconductor manufacturing draws from the domain expertise of multiple disciplines that are typically responsible for delivering separate elements of the complete solution such as IT/Factory Automation, Process Technology, Control Engineering, Yield Management, Metrology, etc.

TOPICS OF SPECIAL INTEREST

- Process Control
- Equipment Control
- Equipment and Process Monitoring
- Integrated Metrology
- Fault Detection and Classification
- Process Modelling and Optimization
- Data Management
- Run-to-run Control

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The presented papers will be further screened for possible publication in the IFAC Journals (Automatica, Control Engineering Practice, Annual Reviews in Control, Journal of Process Control and Engineering Applications of Artificial Intelligence, and Mechatronics), or in IFAC affiliated journals.

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FIRST ANNOUNCEMENT AND CALL FOR PAPERS International Federation of Automatic Control



ADVANCED PROCESS CONTROL FOR SEMICONDUCTOR MANUFACTURING

**December 4 - 5, 2006
Singapore**

<http://ifacsm06.nus.edu.sg>

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Submit the full paper in English, maximum 6 pages, double column formats, using the following layout. The first page must contain the title of the paper, author's name(s) and affiliation(s), complete address (e-mail, FAX, Phone), and an abstract (200-250 words). Sample pages and style files for word and latex users can be found in the workshop website at <http://ifacsm06.nus.edu.sg/paper.html>

DEADLINES

Submission of draft papers: 1st April 2006 via e-mail in PDF files.
Notification of acceptance: 1st June 2006 via e-mail.
Submission of final papers: 1st August 2006.

LOCATION

If there is one word that best captures Singapore, it is "unique". A dynamic city rich in contrast and colour, you'll find a harmonious blend of culture, cuisine, arts and architecture here. Brimming with unbridled energy, this little dynamo in Southeast Asia embodies the finest of both East and West.

Singaporeans are passionate about food and eating. Look around and the proof is everywhere! Almost in every corner of the island, you will find an endless variety of food, served hot or cold, at any hour of the day (or night)!

Shopping is a favourite Singaporean pastime. Orchard Rd offers unrivalled opportunities to spend your life-savings, but window shopping is free. It's also fun exploring the vivacious and unusual businesses in the backstreets of Chinatown, Little India and Arab St.

As night falls, life begins in many quarters of Singapore. Whether you're a party animal, a 24-hour foodie or just a night owl craving adventure around the clock, there are many sizzling surprises to keep your senses satiated till the wee hours of the morning. In fact, Singapore has the added advantage of being one of the safest countries in the world for you to hit the streets at night.

Welcome to Singapore, where unique experiences await you. Whatever your interest, Singapore offers you the traditional and modern, the East and West.