

Final Call for Papers

This call for papers is directed to

Manufacturers
Suppliers
Scientific Community

of

Semiconductor
Photovoltaic
LED, Flat Panel, MEMS,
and other relevant industries

The European Advanced Process Control and Manufacturing (APCM) Conference arose from the European AEC/APC Conference. It is focussed on

Current challenges
and future needs of
Advanced Process Control and
Manufacturing Effectiveness

Abstract Submission Deadline
December 23, 2011

www.apcm-europe.eu

Prime Sponsor



Conference Program

The conference program is organized in **parallel oral sessions** and **poster session**.

Additionally, several **half-day technical tutorials** will be offered to you.

The **exhibition** will be an excellent opportunity to promote products of your company.

Usergroup Meetings are an easy way to meet your customers.

The schedule of events will provide plenty of **time to get in contact** with your colleagues, customers and suppliers.

Sponsorship

Sponsorship of the European APCM Conference offers companies the opportunity to uniquely position themselves as leaders in Process Control and Manufacturing Effectiveness.

Organization



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apc|m
europe

12th European Advanced Process Control and Manufacturing Conference



MINATEC
Grenoble
France

April 16-18, 2012

*The annual European gathering
of professionals in process control
and manufacturing*

The 12th European Advanced Process Control and Manufacturing Conference will be built around sessions of the following topics

Advanced Process Control on Unit Process Level

APC applications at Unit Processes

Plasma processes (PVD, PECVD, plasma etch, P3I), **Thermal processes** (CVD, e-beam, i-beam, evaporation, doping, epitaxy, diffusion, RTP), **Wet processes** (clean, etch, electro- and electroless plating), **Metrology** (films, defect density, in line and large area metrology), **Lithography** (track, exposure tool), **Implant, CMP, Backend**

Unit process control methods

Fault detection and classification (FDC) and fault prediction (FP), Run-to-Run Control (R2R), large area uniformity, unit process development and transfer

Tool and sensor data analysis

Sensor implementation and integration, data collection, aggregation, classification and quality, assigning of logistical data, statistical approaches and non-statistical measures

Maintenance & tool optimization

Preventive maintenance, condition-based maintenance, predictive maintenance, tool improvements, spare parts assessment and qualification, conditioning and first wafer effects, chamber matching

Enhanced Equipment Quality Assurance (EEQA)

Physical and chemical unit process models and model-based sensors, methods to ensure component functionality, reliability, performance and traceability, Equipment Health Monitoring (EHM)

Advanced Process Control on Fab Level

Fab level process control methods

Run-to-Run and Wafer-to-Wafer control, realtime control, control algorithms, defect inspection, test structures (wafer), sampling strategy

Virtual metrology

Application of process models, control density improvement, reduction of measurement operations and non-product wafers, throughput increase

Yield management

Prediction and improvement of product parameters and yield by use of APC methods, novel methods of yield modeling and management

Factory data analysis

Real-time data collection aggregation, classification and quality, process and equipment capability, mathematical methods and model creation, novel methods of data visualization and data analysis

IT infrastructure

Tool interfaces and communication, sensor / actuator bus, interfaces, demands on new standards

Manufacturing Effectiveness and Productivity

Unit process & equipment productivity

Throughput and uptime improvement, cycle time and variability reduction, non-productive wafer and substrate reduction, tool and unit process related productivity improvement

Factory productivity and automation

Factory scheduling and dispatching optimization, throughput and uptime improvement, cycle time and variability reduction, automation-related productivity improvement, master data management, Material tracking of materials, spare parts and consumables, production control

Factory modeling, simulation and optimization

Design for manufacturing, future factory design, capacity and cost modeling, yield modeling & improvement, novel methods of manufacturing data analysis and visualization

Cost optimisation and end-of-life equipment issues

Fixed and variable cost reduction, Cost of Ownership (CoO) and Overall Equipment Efficiency (OEE), unit cost modelling, equipment and maintenance optimization

Environment and Green Manufacturing

Global ESH strategies, facilities operations, facility systems reliability improvements, manufacturing sustainability and resource conservation, lean manufacturing