Call for Papers

Sensing & Sense-making - from data to knowledge

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 (apc|m) Conference is focussed on:

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

Conference Program

The conference program is organized with presentations/talks and poster sessions in parallel. Additionally, several half-day technical tutorials will be offered to you. The accompanying exhibition will provide excellent opportunities for product promotion. 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.

Organized by

SILICON SAXONY
THE HIGH-TECH NETWORK

apc|m europe

17TH EUROPEAN ADVANCED PROCESS CONTROL AND MANUFACTURING CONFERENCE

DUBLIN • IRELAND
APRIL 10 - 12, 2017

Abstract Submission Deadline:

December 2, 2016

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CONFERENCE TOPICS

Process Level APC

Plasma etch, CVD and ALD
Chamber & process characterization (tool health, EEQA, finger printing, chamber matching), process models & model based sensors, dry clean, first wafer / wafer sequence effects, FDC (fault prediction), tool level APC, spare part assessment & qualification

Sputtering, P3I, and e⁻-beam
Chamber & processes characterization (tool health, EEQA, finger printing, chamber matching), spare part assessment & qualification, tool level APC, arcing

Lithography
Exposure tools, coater & developer tracks, tool level APC, within wafer / within die close control

Thermal, wet processing & CMP
EEQA and finger printing, RTP

Backend
APC for testing, die bonding, wire bonding, plating, molding

Metrology and R2R
Virtual, inline, and offline metrology; soft sensors principles, large-area metrology

APC for legacy tools
Hardware & software modifications, integration into existing APC systems, sensor integration

Fab Level APC

Fab level process control methods
Run-to-run and wafer-to-wafer control, real-time 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, predictive maintenance

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, tracking of materials, spare parts and consumables, production planning & control, wafer handling, maintenance strategy, lean manufacturing

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 optimization 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