



ISSM 2008 • TOKYO, JAPAN

Monday, October 27 - Wednesday, October 29, 2008

THE 17th INTERNATIONAL SYMPOSIUM ON SEMICONDUCTOR MANUFACTURING

ANNOUNCEMENT AND CALL FOR PAPERS

Hyatt Regency Tokyo, Japan

Monday, October 27 – Wednesday, October 29, 2008

ABSTRACT DEADLINE: MONDAY, JUNE 2, 2008

Since its start in 1992 in Japan, ISSM has activated technology diagram on semiconductor manufacturing technologies among the professionals from worldwide. The conference aims to keep continuous challenging for further developed technologies from global needs aspects and to approach to excellent turnout by enhancing the discussion on the presented technologies information among professionals. The 17th annual ISSM will be held in Tokyo, Japan.

The semiconductor industry is now enjoying the productivity benefits from 300mm wafer fab with geometry scaling beyond 0.1 micron. The manufacturing technologies show drastic revolution and stronger collaborative efforts are required to find solutions to the pre-competitive challenges. The ISSM 2008 will feature keynote speeches by world leading speakers, timely and highlighted topics besides the ISSM areas of interests, tutorial session which is new to ISSM in Japan and networking sessions focusing on equipment/materials/software/services with suppliers exhibits. ISSM contributes to the continues growth of semiconductor industry through its infrastructure for networking, discussion, and information sharing among world's professionals. We invite you to share your professional experiences at the Seventeenth International Symposium on Semiconductor Manufacturing.

Areas of Interest

Abstract will be accepted for each of following areas of interest. See reverse for further

- * Factory Design (FD)
- * Manufacturing Strategy and Management (MS)
- * Manufacturing Control and Execution (MC)
- * Process Control and Monitoring (PC)
- * Process and Material Optimization (PO)
- * Yield Enhancement Methodology (YE)
- * Process and Metrology Equipment (PE)
- * Ultraclean Technology (UC)
- * Environment, Safety and Health (ES)
- * Final Manufacturing (FM)
- * Design for Manufacturing (DM)

Highlight Theme

Papers on the topics of special interests will be rearranged and will be programmed as a special session for highlight themes. Papers on the following topics are especially welcome. See reverse information.

- * NGF (Next Generation Factory)
- * Actions for New Business Model
- * Advanced Productivity Improvement
- * AEC/APC
- * Advanced Lithography Challenge in Production
- * Application Specific Semiconductor Manufacturing
- * Environmental and Safety Activities

Author Information

Prospective authors are requested to submit abstracts through web browser, consisting of exactly two pages - one page of text (approximately 3,000 characters) and a second page of supporting data, charts, photos and drawings. Only MS-WORD files using the provided template will be accepted. Abstract must be written in English.

Abstract Submission Start	Monday, April 14, 2008
Abstract Submission Due	Monday, June 2, 2008
Notification of Paper Acceptance	Friday, July 18, 2008

Tutorials

Tutorials for AEC/APC and Environmental issues in semiconductor industries will be held in the morning of the first day. See web site for details.

ISSM

Sponsors:



Refer to Web Page: <http://www.issm.jp/> for most current information.

Additional details for the Areas of Interest and Highlight theme

Details for the Areas of Interest

FD: Factory Design & Automated Material Handling

This area focuses on fab design and its key enablers to meet the flexibility, extendibility, and scalability needs of a cost-effective leading-edge fab.

MS: Manufacturing Strategy and Operation Management

This area focuses on strategy and concepts for more functional fab, and its operation management to meet rapidly changing complex business requirements.

MC: Manufacturing Control and Execution

This area includes manufacturing execution and decision support systems, factory scheduling, control of equipment/materials handling systems and queue time management.

PC: Process Control and Monitoring

This area focuses on tighter process control for 65nm/45nm production, faster ramp up of volume production and higher uptime by FDC and e-diagnostics.

PO: Process and Material Optimization

This area focuses on process and material optimization from the standpoint of miniaturization, cost reduction and environment.

YE: Yield Enhancement Methodology

This area focuses on probe yield enhancement and its stabilization technology including inspection, analysis and reduction of defects and particles. Reports for the advanced 45nm process and 300mm wafer processes would be especially attractive.

UC: Contamination Control and Ultraclean Technology

This area focuses new technology on damage-less particle removal, contamination control of wafer backside and bevel, surface cleaning for new materials and fine structure. Energy saving cleaning and molecular level contamination control in 300mm wafer fab will be included.

ES: Environment, Safety and Health

This area focuses on suppression of energy and materials consumption, recycling and reuse of materials from the standpoint of human friendly environment in semiconductor factory.

PE: Process and Metrology Equipment

This area focuses on finer pattern delineation/control. The application of equipment engineering system will be highlighted.

FM: Final Manufacturing

This area focuses on "3D technology", "Flip chip & fine pitch bump", "Si interposer" and "Lead-free connection".

DM: Design for Manufacturing

This area focuses in the collaboration between manufacturing and design including RET, OPC and systematic defects.

Details for the highlight theme

NGF: Next Generation Factory

Overall issue for design and manufacturing
ROI, 450mm wafer, Strategy for equipment and metrology
Control System, Single wafer transportation
Standardization and Scheduling

Actions for New Business Model

Response to rapidly changing, complex business requirements
Reduced time to ramp factories and products
Global Supply Chain Management

Advanced Productivity Improvement

Bottleneck equipment productivity improvement
Improvement in both throughput and cycle time
On-time-delivery, Raw process time reduction
Queue time control, Benchmarking on productivity

AEC/APC

Advanced Equipment Control / Advanced Process Control
Accuracy enhancement for finer geometry
Feed-back and feed-forward between processes
Excursion control for stable equipment operation

Advanced Lithography Challenge in Production

ArF immersion lithography
DP (Double patterning technology), SA(Self Align) DPT
EUV(Extreme Ultraviolet) lithography

Application Specific Semiconductor Manufacturing

Mixed Signal / Radio Frequency / Power / Automotive
Countermeasure against Noise, High reliability
High voltage tolerance, Certification

Environmental and Safety Activities

Activities for WSC 2010 targets in ESH focus areas
(energy-saving, greenhouse-gases emission reduction)
Activities and precautions against earthquake and fire
Post-disaster recovery from earthquake and fire

Nano-level Contamination Control

Mini-Environment / FOUP
Damage-free wet cleaning

Sessions for highlight themes depends on the contents and numbers of accepted papers. Above mentioned are expected examples and themes are subject to change.

Recommendation for IEEE/TSM

Best papers for ISSM will have the chance to submit full papers for IEEE/TSM (Transactions on Semiconductor Manufacturing) which is published quarterly for worldwide distribution. About ten papers are annually selected and reported in ISSM/TSM special session for the next year.

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