



SAE 2008 Application of Lean and Six Sigma for the Automotive Industry

Operational Excellence Throughout the Mobility Enterprise

December 2-3, 2008

Hyatt Regency Dearborn
Dearborn, Michigan, USA

Key Symposium Features

- Session Keynote Presentations from GE Aviation, Toyota and Motorola
- Case-Study Presentations from OEMs and Suppliers such as GM, Ford, Chrysler, E-Z-GO, Visteon, Delphi and Bosch
- Industry Networking Reception

**Pre-register by
November 14, 2008!**

SAE Members save \$400

Non Members save \$100

www.sae.org/leansixsigma

SYMPOSIUM



SYMPOSIUM OVERVIEW

SAE 2008

Application of Lean and Six Sigma for the Automotive Industry Symposium

Operational Excellence Throughout the Mobility Enterprise

December 2-3, 2008

Hyatt Regency Dearborn • Dearborn, Michigan, USA

The race to get products to market faster and cheaper while achieving or maintaining best-in-class quality is an ever increasing issue for the entire manufacturing supply chain. Continuous cost pressures on tier suppliers coupled with OEM staff reductions make it essential that the mobility industry improve integrated design and manufacturing processes to remain competitive.

The Application of Lean and Six Sigma for the Automotive Industry Symposium will provide technical information and discussions from OEMs, and tier suppliers. Hear how some of the world's leading end-users implemented and applied their DFSS, Six Sigma, Lean, and Lean-Six Sigma programs, what their training strategies were and what they learned through process control.

Symposium attendees will have the added benefit of networking with other mobility professionals who are working towards best-in-class cost reduction practices and process improvement. *This is a must-attend event!*

WHAT TO EXPECT

Topics of Discussion

- Lean Principles to Quality Deliverables
- Transactional Lean in Aftermarket
- Six Sigma Training Deployment
- Developing Customized, Organization-Specific DFSS Training
- Combining Robust Optimization and CAE
- Current and Future State of DFSS, Lean, Six Sigma and Lean Sigma

WHO SHOULD ATTEND

- Design Engineers
- Production & Manufacturing Engineers
- Research & Development Engineers
- General Managers
- Supervisors & Shop Floor Managers
- Company Executives

ORGANIZERS



SYMPOSIUM CHAIR

Prakash Sathe

Global Management
Consultants, LLC



SYMPOSIUM VICE-CHAIR

Mohamed El-Sayed

Professor
Mechanical Engineering
and Director of the Hybrid
Electric Vehicle Systems
Integration Laboratory,
Kettering University



SYMPOSIUM HIGHLIGHTS

SESSION KEYNOTES

Hear leading practitioners of Design for Six Sigma, Six Sigma, Lean Sigma and Lean discuss critical success factors for current and future application of these processes or technologies with lessons learned and successes earned.

Tuesday, December 2

Six Sigma: *Current and Future State of Six Sigma* - **Tom Judd**, Motorola, Inc.

Design for Six Sigma: *Lessons from 10 years of DFSS & Implications for the Future* - **Gene Wiggs**, GE Aviation

Wednesday, December 3

Lean: *Current and Future State of Lean* - **James "Jamie" Bonini**, Toyota Motor Engineering & Manufacturing North America, Inc.

Lean Sigma: *Current and Future State of Lean Six Sigma* - **Norma Simons**, Simons/White Associates

PANEL DISCUSSIONS

During these interactive discussions, attendees will have the opportunity to delve into the selected subject as well as participate in the discussions with industry specialists. The informal atmosphere will encourage a free exchange of information and sharing of knowledge, concerns and engineering experiences. Ask or offer advice, and listen to the latest experiences of others active in these areas.

Tuesday, December 2

Six Sigma: *Six Sigma Deployment* - Moderator: **Prakash Sathe**, Global Management Consultants, LLC

Design for Six Sigma: *DFSS Deployment* - Moderator: **Prakash Sathe**, Global Management Consultants, LLC

Wednesday, December 3

Lean: *Lean Deployment* - Moderator: **Mohamed El-Sayed**, Kettering University

Lean Sigma: *Lean Sigma Deployment* - Moderator: **Mohamed El-Sayed**, Kettering University

PRESENTATION LEARNING OBJECTIVES

Six Sigma: Evaluate a process that you can build up or utilize to support your continuous improvement.

Design for Six Sigma: An engineer's product is decisions. Therefore Lean PD and DFSS are about making better decisions faster and project management should focus on those decisions not the rout application of tasks.

DMAIC and DFSS are complimentary strategies that can be used (and taught) together. Organizations with unique operating environments demand unique teaching strategies; the 'Prototype' Catapult Case Study can be modified to simulate any organization's particular learning needs.

Lean: Explore how lean manufacturing techniques can be successfully applied to support an ever-increasing product portfolio and fluctuating demand profile in mixed-mode environments. Not only the "what" of lean and safe but "how" to go about it.

Lean Sigma: Gain an understanding of what is a Lean Accelerator and what benefits you can expect from such an undertaking.



PRELIMINARY SYMPOSIUM AGENDA*

TUESDAY, DECEMBER 2

7:00 a.m. Registration

8:00 a.m. Welcome/Introductions
Marc LeDuc, SAE International
Prakash Sathe, Global Management Consultants, LLC

SIX SIGMA

8:15 a.m. Session Keynote
Current and Future State of Six Sigma
Tom Judd, Motorola, Inc.

9:00 a.m. *The TRW Automotive Cost Determination and Reduction (CDR) Program - a method for HS&E risk and cost reduction*
Rick Bell, Bob Bleazard, TRW Automotive

9:30 a.m. *Chrysler LLC's Innovation Program: Lessons Learned*
Harry Flotemersch & Gregg Mueser, Chrysler LLC

10:00 a.m. Break

10:30 a.m. *Implementing Six Sigma at an Original Equipment Manufacturer: Case Study*
David Yellamati, Rockwell Automation

11:00 a.m. *Six Sigma Training/Deployment Case-Study*
Steven LaBarge, Ice Mountain

11:30 a.m. Panel Discussion: *Six Sigma Deployment*
Moderator: **Prakash Sathe**, Global Management Consultants, LLC

12:00 p.m. Lunch

DESIGN FOR SIX SIGMA

1:00 p.m. Session Keynote
Lessons from 10 years of DFSS & Implications for the Future
Gene Wiggs, GE Aviation

1:45 p.m. *Lost Energy and the Search for the Ideal Function*
Paul Vickers, General Motors Corp.

2:15 p.m. *Making Better Decisions Faster by Combining Robust Optimization and CAE*
Paul Wickett, Robert Bosch LL

2:45 p.m. Break

3:00 p.m. *Train the Trainer: Developing Customized, Organization-Specific DFSS Training*
Rick Amori, Ford Motor Co.

3:30 p.m. *Robust Design*
Brian Weiss, SKF USA, Inc.

4:00 p.m. *Implementing DFSS Within A Multinational Corporation*
Speaker TBA

4:30 p.m. Panel Discussion: *DFSS Deployment*
Moderator: **Prakash Sathe**, Global Management Consultants, LLC

5:00 p.m. Networking Reception



PRELIMINARY SYMPOSIUM AGENDA*

WEDNESDAY, DECEMBER 3

8:00 a.m. **Announcements**
Marc LeDuc, SAE International
Prakash Sathe, Global
Management Consultants, LLC

LEAN

8:15 a.m. **Session Keynote: Current and Future State of Lean**
James "Jamie" Bonini
Toyota Motor Engineering
& Manufacturing North America, Inc.

9:00 a.m. **Lean Techniques: Automotive Aftermarket Case Study**
Joe LaRussa, Visteon Corporation

9:30 a.m. **Lean Engineering: Challenges for Automotive Remanufacturing**
Ramesh Subramoniam
CFPIM, PMP, Delphi Systems, Inc.

10:00 a.m. **Break**

10:30 a.m. **De-Mystifying Lean Manufacturing Principles in a High Mix Environment**
Aamer Rehman, i2 Technologies

11:00 a.m. **Lean Applied to Employee Safety**
Mike Taubitz, General Motors Corp.

11:30 a.m. **An Oil Seal Case Study: The Progression of Using Lean Tools and Techniques in Manufacturing**
Drew M. Algase, CVS,
Freudenberg-NOK

12:00 p.m. **Lunch**

1:00 p.m. **Challenges in Creating Lean Supply Chain for Military**
John Dunnaback, Celerant;
Sue Dueitt, Major General (retired)

1:30 p.m. **Panel Discussion: Lean Deployment**
Moderator: **Mohamed El-Sayed**,
Kettering University

2:00 p.m. **Break**

LEAN SIGMA

2:30 p.m. **Session Keynote: Current and Future State of Lean Six Sigma**
Norma Simons,
Simons/White Associates

3:15 p.m. **Textron Six Sigma Lean Accelerator – Leaning out the Mixed Model Line Value Stream: A Case Study**
Renée Stern, E-Z-GO,
A Textron Company

3:45 p.m. **Lean Sigma Technology Framework**
John Cachat, IQS
Kreg Kukor, Retired, Cequent

4:30 p.m. **Panel Discussion: Lean Sigma Deployment**
Moderator: **Mohamed El-Sayed**,
Kettering University

5:00 p.m. **Symposium Wrap-up and Conclusion Questions & Answers**

*Speakers, Times and Topics Subject to Change.
Visit www.sae.org/leansixsigma for the latest event updates.



REGISTRATION AND FEES

Maximum Savings!

Become an SAE Member and pre-register by November 14, 2008.

Registration and Fees	Before November 14	After November 14
SAE Member	\$595	\$695
Non-member	\$895	\$995
Participant (speakers, moderators and organizers)	FREE	FREE

NOTE: Fee includes technical presentations, receptions, lunches, coffee breaks and access to electronic copies of the presentations immediately following the event.

Conditions of Sale

All cancellations must be in writing and received by SAE prior to November 14, 2008. A \$50 processing fee will be assessed for each cancelled registration that results in a refund. Refunds will not be issued if cancellation occurs on or after November 14, 2008. This policy includes special event and meal fees. For the SAE membership registration rates, member dues must be current at the start of the event. Children under 16 years of age are not permitted.



SAE will do what is feasible to make its events reasonably accessible to attendees. If you have special accommodation needs, please let us know in advance by calling 1-877-606-7323 (1-724-776-4970 outside U.S. and Canada). Accommodations requested on site will be provided only if possible for us to do so on short notice.

TO REGISTER

SAE Customer Service

Online: www.sae.org/leansixsigma
 Toll-free: 1-877-606-7323 (U.S. and Canada)
 Telephone: 1-724-776-4970
 (Outside U.S. & Canada)
 Fax: 1-724-776-0790
 Email: CustomerService@sae.org

REGISTRATION HOURS

Tuesday, December 2
 7:00 a.m. – 5:00 p.m.

Wednesday, December 3
 7:00 a.m. – 1:00 p.m.

HOTEL AND TRAVEL INFORMATION

Hyatt Regency Dearborn

600 Town Center Drive, Dearborn, Michigan, 48126-2793
 Phone: 1-313-593-1234 • Fax: 1-313-593-3366

The Hyatt Regency Dearborn is the focal point of the 235-shop Fairlane Town Center business and is near Greenfield Village, Henry Ford Museum and Ford Motor Co. World Headquarters.

All attendees are responsible for their own lodging and travel arrangements. A block of sleeping rooms has been reserved at the Hyatt Regency Dearborn. SAE's group rate is \$119 per room per night single or double occupancy, all inclusive, plus local, state and federal applicable taxes.

Reservations should be made directly through the Hyatt by calling one of the following numbers by Monday, November 17, 2008. Please mention the "SAE International Application of Lean and Six Sigma for the Auto Industry Symposium" when making your reservations.

Hyatt Regency Dearborn Reservations:
 1-313-593-1234 (Ask for In-house reservations) or
 Hyatt Central Reservations: 1-800-233-1234

NOTE: Please help SAE keep the costs of this event as low as possible by booking your housing needs at the Hyatt Regency Dearborn and through the reservation process created by SAE.

Visit www.sae.org/leansixsigma for complete hotel and travel information.



MARKETING SOLUTIONS

The Application of Lean and Six Sigma for the Automotive Industry Symposium is an easy, cost-effective way to distinguish your company from the competition and reach your target audience of industry professionals!

Partnership Package\$3,500

Partnerships are available for multiple companies with all partners receiving the following benefits:

- Networking events signage, and recognition by the Symposium Chair at the Networking Reception, luncheons and refreshment breaks on Tuesday and Wednesday
- Partner recognition on the SAE Application of Lean and Six Sigma for the Automotive Industry Symposium sponsor page with link to your website, in the Event Guide, signage and event promotions
- Two Symposium Registrations
- Special thank you from keynote speakers, and the opportunity to display corporate logo on the Welcome Slide
- Opportunity to reach attendees through a one-time third party post-event mailing

Partner*



Friend of Industry\$1,500

- Partner recognition on the SAE Application of Lean and Six Sigma for the Automotive Industry Symposium sponsor page with link to your website, and in the Event Guide
- One Symposium Registration

For more information or to take advantage of these opportunities contact:

SAE Customer Sales

Toll Free: 1-888-875-3976 (U.S./Canada) • 1-724-772-4086 (outside U.S./Canada)

Email: CustomerSales@sae.org

*As of 9/25/08

RELATED RESOURCES FROM SAE INTERNATIONAL

Six Sigma and Reliability and Robust Design in Automotive Engineering

The 17 papers in this publication present information associated with the use and application of six sigma methodologies and statistical tools for continuous improvement. The area of application may not be limited to a specific product but to a wide range of products, services and processes to improve productivity, reduce defects, and to optimize processes.

148 Pages, April 2007

Non-Members: \$104.95

SAE Members: \$83.96

Product Code: SP-2071

Integrated Manufacturing, 2008

The 16 papers in this publication address issues related to the interdependence between OEM, their tier suppliers and the supply chain servicing these organizations. The uses and application of six sigma methodologies and statistical tools for continuous improvement is also covered.

146 Pages, April 2008

Non-Members: \$94.95

SAE Members: \$75.96

Product Code: SP-2208

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