

JANUARY MEETING

Thursday, 16-Jan-2003

PROGRAM:

**Failure Mode Verification Testing
(FMVT) - Accelerated Testing with Failure
Mode Ranking and Correlation**

SPEAKER: Alex Porter

Business Development Manager, Entela, Inc.

*Entela has kindly offered to furnish
our social during the January meeting.
We thank them for their sponsorship ...*

FMVT provides a fast durability test (1-5 days) that verifies the failure modes that exist in the product and allows for analysis of the unique failure modes, their progression in time and stress, their repeatability and ultimately their potential impact on the reliability of the product. Traditional highly accelerated tests such as HALT (Highly Accelerated Life Test) have not always provided a good means of evaluating the relevance of failure modes found under extreme conditions. FMVT provides correlation to the products service conditions, destruct limits, previous designs and known phenomenon to put the failure modes in context and in some cases make service life predictions. Theory and case studies will be reviewed.

Registration Info:

Event registration for social and dinner must be made prior to **NOON on Monday, January 13th**. Register with a Charge Card @ <http://milwaukee.sae.org>, via email: milw-sae@wi.rr.com, or voice: 414-616-1722.

"No-shows" with reservations will be billed.

Fifty-year members are entitled to a free dinner annually.



--- MEETING AGENDA ---

**Location: MSOE, Todd Wehr Auditorium
1047 N. Broadway
Milwaukee, WI 53202**

**Social: 5:30-6:15pm
Dinner: 6:15-7:00pm
Presentation: 7:00-8:00pm**

DINNER MENU:

Buffet will be provided - *No selection is required*

Included is Beef Burgundy, Chicken Chardonnay, twice baked potatoes, green beans almondine, kernel corn, waldorf salad, tossed green salad, rolls, coffee, milk, ice tea and dessert tarts.

Event Costs:

SAE Members / spouses:	\$15.00
Retirees:	\$13.00
Guests / Non-members:	\$16.00
Students:	\$6.00

Presentation / Speaker:

Title: Failure Mode Verification Testing (FMVT) - Accelerated Testing with Failure Mode Ranking and Correlation

FMVT® (Failure Mode Verification Testing) is a patented process to employ highly accelerated test methods.

FMVT® reveals inherent design weaknesses first predicted by the FMEA (Failure Mode & Effects Analysis) process. By exposing a design to a combined set of amplified environments/stresses, multiple failure modes (and their sequence and distribution) are produced in as little as one day.

FMVT® brings disciplines together: - Design engineering - Reliability engineering - Computer modeling - Failure analysis. And because it can be completed in a day or two, FMVT® makes it logistically and economically possible to bring people from all these areas into the testing process.

Alexander J. Porter is the Engineering Development Manager for the Testing and Engineering Division of Entela, starting with the company in 1992.

Since 1996, he has been developing accelerated testing methods for mechanical components and systems.

Alex has three patents related to accelerated testing equipment and methods. His work in the past has included implementation of FMEA in a laboratory setting and development of a thermal management system for an advanced data acquisition package developed by NASA's Dryden Flight Research Facility.

Alex is a member of SAE and holds a B.S. in Aircraft Engineering and an M.S. in Mechanical Engineering, both from Western Michigan University.



Milwaukee Section 2002-2003 Governing Board

CHAIRMAN:

Shawn A. Ray
General Electric Company
E-Mail: shawn.ray@med.ge.com
Work: (262) 312-7539
Fax: (262) 312-7434

VICE CHAIR: OPEN

SECRETARY: OPEN

TREASURER:

Bill Schultz
Retired
E-Mail: Schulb23233@aol.com

VICE CHAIR MEMBERSHIP:

Dale Wiza
Hiller Ford, Inc.
E-Mail: dalewiza@hillerford.com
Work: (414) 425-1000
Fax: (414) 425-3622

VICE CHAIR MATH/SCIENCE:

Janice Mosley-Robinson
Executive Dir ESM
Web: <http://www.eng.mu.edu/~esm/>
E-Mail: esm@marquette.edu
Work: (414) 288-3483

VICE CHAIR STUDENT ACTIVITIES:

Tim Post
Husco Int.
Waukesha WI 53187-0257
E-Mail: timp@huscointl.com

VICE CHAIR PROGRAMS:

Mark DeBattista
Harley-Davidson Motor Co
Work: (414) 616-1119
E-mail: mark.d@email.sae.org

HISTORIAN:

Don Berchem
4991 Hillside Dr
West Bend, WI 53095
E-Mail: dberchem@milwpc.com

MEMBER at LARGE:

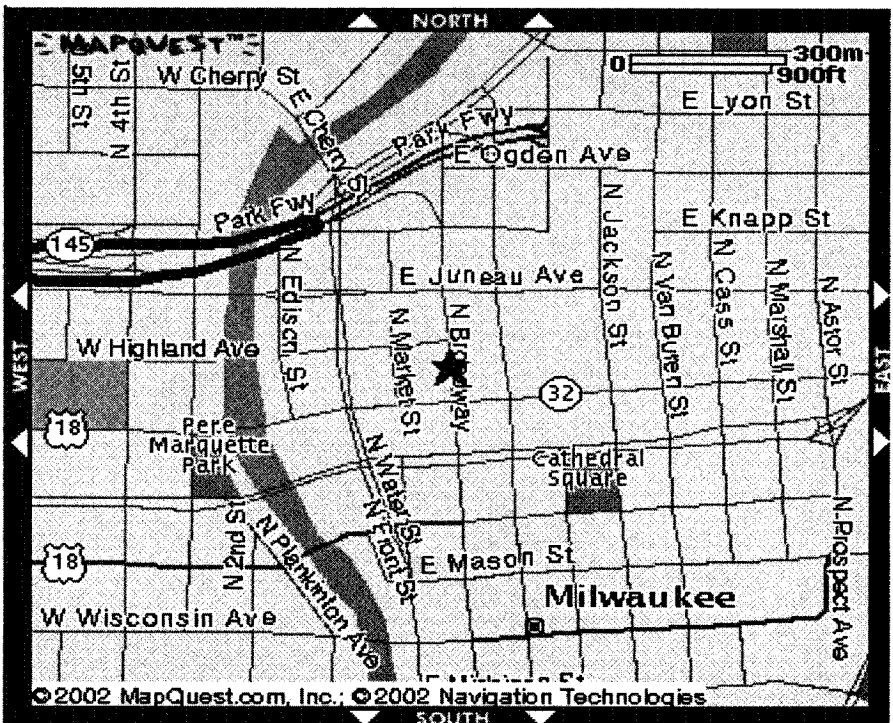
Bill Riebe
Retired
Voice: (262) 246-3386
Fax: (262) 246-7290

Alt SECTION DELEGATE:

Doug Bayerlein
Bay-San Co., Inc.
E-Mail: dgbayerlein@woodway.com
Work: (262) 548-6200

MSOE is providing free parking in the lot directly east (across Broadway Street) from the entrance to Todd Wehr.

For the latest information visit the SAE web sites:
<http://milwaukee.sae.org> for the Milwaukee Section or,
<http://www.sae.org> for S.A.E. National.



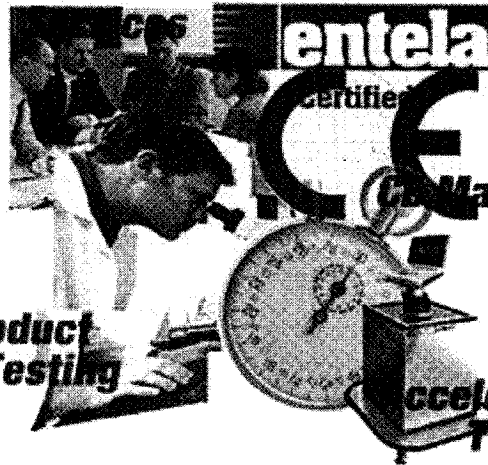
**Todd Wehr Auditorium (on MSOE campus) at
1047 N. Broadway (S W corner of Broadway & Highland Ave)**



SAE Milwaukee Section



Registration



Entela, Inc provides comprehensive engineering, testing and quality services to a diverse client base around the world. Headquartered in Grand Rapids, Michigan, Entela also has facilities in Detroit, Boston, Toronto and Taiwan. They have been recognized as one of the fastest growing, privately owned companies in Michigan, one of the top quality registrars in the world and one of Michigan's most progressive employers.

Milwaukee Section Sponsorship

We would like to thank the following organization for their continued support of the Milwaukee Section:

Harley-Davidson Motor Company

For information on becoming a sponsor, please contact: Mark DeBattista