

--To: All members of SAE Fatigue Design and Evaluation Committee

SAE Fatigue Design and Evaluation Committee  
October 16-17, 2001 in Toledo, Ohio  
(Local Sponsor: Ali Fatemi University of Toledo)

#### AGENDA

##### General Information:

The meetings will be held at the Clarion Hotel. If you have not made reservations you should do so as soon as possible.

Clarion Hotel  
Toledo, Ohio

Ali Fatemi  
University of Toledo

Map: [http://fde.uwaterloo.ca/toledo\\_map.jpg](http://fde.uwaterloo.ca/toledo_map.jpg)

Monday Night October 15, 2001

7:00 PM Executive Committee Meeting (Steuben Room, Clarion Hotel)

TUESDAY MORNING, (OCTOBER 16, 2001)

7:30 AM Registration and Coffee, Juice & Donuts

8:00 Main Committee Meeting - Nitshcke Hall Seminar Room (first floor)  
Announcements - Phil Dindinger  
Local Arrangements Ali Fatemi  
Education  
Next Meeting -

8:15 Henry O. Fuchs Student Travel Award & Presentation

"Prediction and Correlation of the Average Crack Opening Stress Level with Frequency of Occurrence of the Cycles of Three SAE Service Spectra using Three Different Materials" By Mohamed Khalil- University of Waterloo

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!!! Surface Enhancement Division Meeting will run concurrent  
!!! to the other meetings in MIME Conference Room.  
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9:00 Structural Analysis Division - Mary Wickham

- Review and approval of April meeting minutes
- "Stress Concentration and Stress Distribution in Weldments"  
Greg Glinka
- "A Survey of FEA-Based Stress Recovery Methods in ADAMS" -

Jim McConville

10:00 Break: Coffee & Juice

10:30 Divisional Progress Meetings Cont.  
- Nitshcke Hall Seminar Room

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!!! Surface Enhancement Division Meeting will run concurrent  
!!! to the other meetings in MIME Conference Room.  
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10:30 Materials Properties Division - John Bonnen

- Review and approval of April meeting minutes
- ATV Front Suspension Digitization - Russ Chernenkoff
- "Powder-Forged Aluminum Composite for Powertrain Applications"- Russ Chernenkoff
- "Shaft Straightening Fracture Estimation" - K. Yeung, A. Conle
- "The Influence of High R Ratio on Unnotched Fatigue Behavior of 1045 Steel with Three Different Heat Treatments" - Ralph Stephens

11:45 Lunch -- Local Restaurants

TUESDAY AFTERNOON, (OCTOBER 16, 2001)

1:00 Divisional Progress Meetings (Continued)  
- Nitshcke Hall Seminar Room

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!!! Surface Enhancement Division Meeting will run concurrent  
!!! to the other meetings in MIME Conference Room.  
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1:00 Fatigue Life Prediction Division - Al Conle

- Review and approval of April meeting minutes
- "High Mean Stress Level Tests" - Russ Chernenkoff
- "Life Prediction for Specimens Subjected to High Mean Stress Levels," Chin-Chan Chu

2:00 Road Load Data Acquisition Division - Christoph Leser

- Review and approval of April meeting minutes

- "Using Analytical Loads Prediction to Assist in Generating Laboratory Dynamic loadsfor Durability Testing" - Robert L. Geisler

- "Automated Road Load Data Analysis for Verification of Data Integrity" Darragh Murphy

- "Update on EDM method for ATV shock absorber modeling" - Christoph Leser

3:00 Break: Coffee & Soft Drinks

3:30 Component Testing Division - Paul Lubinski

- Review and approval of April meeting minutes

- Overview of ATV progress - Ric Mousseau

- "Vibration Theory and Practice of FMVT (Failure Mode Verification Testing)" - Alex Porter

- "Creating a Durability Test Schedule with Fatigue Editing Techniques" - Kurt Munson

- Call for volunteer for division vice-chair

6:30-9:00 PM Social Hour Sponsored by Dynamic Testing Equipment.  
At Hotel in Ballroom 4.

WEDNESDAY MORNING, (OCTOBER 17, 2001)

7:30 AM Coffee, Juice and Donuts

8:00 Technical Session - Room: Ballroom 3

8:15-8:30 Introduction to the UT College of Engineering  
Dr. Nagi Naganathan, Interim Dean

8:30-8:55 "Multiaxial Fatigue Behavior of Rubber: Experimental Observations and Life Predictions"  
Dr. Will Mars, Cooper Tire Dr. Ali Fatemi, University of Toledo

8:55-9:20 "Fatigue Reliability of Cars under Road-Induced Cyclostationary Excitation" Dr. Efstratios Nikolaidis, University of Toledo

9:20-9:45 "ATV Dynamics Model for Handling and Loads Analysis"  
Nikhil Kulkarni, Graduate Assistant, University of Toledo

Girish Markale, Graduate Assistant, University of Toledo  
Dr. Ric Mousseau, University of Toledo

9:45-10:15 Break

10:15-10:40 "Torsional Behavior of a Spring Steel Including Mean  
Stress Effects" Dane McClafin, Graduate Assistant,  
University of Toledo Dr. Ali Fatemi, University of Toledo

10:40-11:05 "An Effiecent 3D Tire Model" by Dr. Ric Mousseau,  
University of Toledo

11:05-11:30 "Fatigue Behavior of Gears" by Dr. Ahmet  
Kahraman, University of Toledo

12:00 Lunch -- Local Restaurants

WEDNESDAY AFTERNOON (OCTOBER 17, 2001)

1:15 Divisional Planning Sessions (Concurrent Sessions)

Room: Ballroom 3

Room: Steuben

1:15 Material Properties Division Structural Analysis  
Division

1:45 Fatigue Life Prediction Division Component Testing  
Division

2:30 Road Load Data Acquisition Division

3:30 End of Meeting

Tuesday October 16, 2001

9:00 Surface Enhancement Division - Jack Champaigne

Room: MIME Conference Room

Topics for Discussion:

1. J 442 Almen strip, holder and gage (recent ballot changes in  
dimensions etc)

2. Progress on computer generated saturation curves (Lombardo)

### 3. Progress at the Purdue Shot Peen Center (Prof Corum)