

## Engineering Center Steyr



Conference Center:  
The Management Education Center  
811 West Square Lake Road  
Troy, MI 48098  
Tel: (248) 879-2456  
www.mectroy.com



### Directions:

From I-75 take the Crooks Road exit. Crooks Road is exit number 72. At the end of the exit ramp turn right and go 1/2 mile north on Crooks Road to the intersection of Square Lake Road. Turn right on to Square Lake Road and head east. The MEC driveway is the first one on the right hand side.



### Hotels:



**Embassy Suites, Troy**  
850 Tower Drive  
Troy, MI 48098  
248-879-7500  
(very close 1.6 miles)



**Hilton Detroit/Troy**  
5500 Crooks Road  
Troy, MI 48098  
248-879-2100  
(closest hotel to center, 0.7 miles)

## Engineering Center Steyr



# 2<sup>nd</sup> FEMFAT User Meeting North America

Thursday, November 9<sup>th</sup>, 2006  
Troy, Michigan



## Structural Durability in Virtual Product Development

## 2<sup>nd</sup> FEMFAT User Meeting North America

Thursday, November 9<sup>th</sup>, 2006  
MSU Management Education Center in Troy, MI

### Preliminary Agenda

- 08:00 am Continental breakfast
- 09:00 am **Welcome and introduction**
- 09:20 am **Bedplate fatigue predictions including residual stress effects from cast-in inserts**  
Mike DeJack, **FORD**
- 09:45 am **Torque converter piston FEA and fatigue analysis**  
Sripathi Nilkar, **FORD**
- 10:10 am Break
- 10:30 am **Exhaust systems durability with dynamic loading**  
Reda Adimi, **FORD**
- 10:55 am **Use of virtual iteration in order to generate component loads**  
Wolfgang Witteveen, **LCM**
- 11:20 am **Durability analysis of product components using an integrated MBS FEA technique with FEMFAT**  
Karl Bangert, **FunctionBay**
- 11:45 am Lunch break
- 01:00 pm **Crankshaft analysis with EXCITE & FEMFAT**  
Peter Van Wieren, **AVL**
- 01:25 pm **Recent and future development of FEMFAT (outlook to 4.7)**  
Helmut Dannbauer, **Engineering Center Steyr**
- 02:10 pm Break
- 02:30 pm **Dynamic analysis of powertrain systems / State of the art and future developments**  
Wolfgang Witteveen, **LCM**
- 03:00 pm **FEMFAT workshop - Tips & tricks**  
Matthias Meise, **Engineering Center Steyr**
- 04:00 pm Questions and answers, discussion
- 04:30 pm Adjourn and socializing
- 05:30 pm End

\*\*\* Lecturers abstracts available at [www.femfat.com](http://www.femfat.com) \*\*\*

Please fax to 248-524-5570  
or register online at [www.femfat.at](http://www.femfat.at)

#### Registration for the User Meeting

I will attend the FEMFAT User Meeting North America

First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Company \_\_\_\_\_

Division \_\_\_\_\_ Dept. Code \_\_\_\_\_

Street or P.O. Box \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_

Date \_\_\_\_\_ Signature \_\_\_\_\_



3D-postprocessor



Fatigue life/Damage and safety factors for simple loads, comprehensive FE-interfaces and material database



Multiaxial fatigue



Spot-joined structures



Welded structures

**PLAST**  
Local plasticity

**BREAK**  
Static safety factors

**HEAT**  
Thermomechanical fatigue

**STRAIN**  
Measured strain based fatigue analyses



Engine dynamics/  
Acoustics simulation



Sub-modeling



Analysis & preparation  
of measurement data

For questions please contact:  
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