



## Registration and Fees (in US Dollars)

**On or Before April 6, 2004:**  
Members: \$695  
Non-members: \$795

**After April 6, 2004:**  
Members: \$795  
Non-members: \$895

**Save \$100 when you register on or before April 6th!**

Each symposium fee includes the respective sessions, refreshment breaks, lunches, networking reception, and handout materials. Registration is limited. Those desiring to enroll after **Tuesday, April 6, 2004** should first verify available space by calling SAE Customer Service.

Due to the program format and the nature of the information presented, handout materials will only be available to registered attendees. This allows all information discussed to be taken in the context in which it is presented. Requests for handout materials by non-registrants will not be considered.

### REGISTRATION FORM

031981

## Frontiers of Automotive Telematics Systems Symposium

April 20-21, 2004 • MSU Management Education Center • Troy, Michigan

#### Register me for:

Frontiers of Automotive Telematics Systems Symposium (ID#2004TT04)

#### Preferred mailing address is:

Business  Home (Check one)

SAE Member No. \_\_\_\_\_

Registrant's Name (first/m.i./last) \_\_\_\_\_

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*Be sure to indicate on checks as well as purchase orders the names of participants, Symposium name, and dates. Please print clearly.*

Note: The SAE reserves the right to change speakers or cancel programs due to circumstances beyond its control and cannot be held responsible for costs incurred other than the registration fee.

**Conditions of Sale:** Payment must accompany registration. No refunds or cancellations after **Tuesday, April 6, 2004.**



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 checking the box and attaching a brief description of how we can serve you better. Accommodations requested on site will be provided only if possible for us to do so on short notice.

**To register and for additional details, contact SAE:**  
Online: [http://www.sae.org/contedu/tt\\_frontiers.htm](http://www.sae.org/contedu/tt_frontiers.htm)  
E-mail: [CustomerService@sae.org](mailto:CustomerService@sae.org)  
Phone: Toll free 1-877-606-7323  
(outside US/Canada 1-724-776-4970)  
Fax: 1-724-776-0790  
Mail: Attn: Customer Service, SAE,  
400 Commonwealth Drive, Warrendale, PA 15096-0001

ADDRESS SERVICE REQUESTED

## Frontiers of Automotive Telematic Systems Symposium

April 20-21, 2004  
MSU Management Education Center  
Troy, Michigan**Save \$100 -  
register by April 6th!**

Forecasts predict increasing demand for telematics products and services. PREPARE for the future by learning about cutting-edge advances in telematic systems and components including the requirements, constraints and regulatory issues as well as the challenges industry faces.

**SAE**International™

"The premier society dedicated to advancing mobility engineering worldwide"

*"Market forecasts suggest that telematics solutions will be a US\$20 billion global market by 2007."*

—Axel Fuchs, Motorola from his book *Automotive Telematics*

### Frontiers of Automotive Telematic Systems Symposium

April 20-21, 2004 • MSU Management Education Center • Troy, Michigan

PREPARE for the future as telematic products and services gain momentum. Join us for an exciting lineup of presentations by leading technical experts as we explore:

- Telematic architectures & alternatives
- Technical limitations of components
- Current trends and research areas in vehicle telematics
- Components of business cases for telematics
- Required testing for vehicle telematics

**Save \$100 when you  
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"The premier society dedicated to advancing mobility engineering worldwide"

*"Market forecasts suggest that telematics solutions will be a US\$20 billion global market by 2007."*

—Axel Fuchs, Motorola from his book *Automotive Telematics*

**...ARE YOU READY?**

## Frontiers of Automotive Telematic Systems Symposium

**April 20-21, 2004**

**MSU Management Education Center • Troy, Michigan**

I.D.#2004TT04

Forecasts of increasing demand for telematics products and services have many industry players searching for the ideal business model. Gain the competitive edge by keeping abreast of emerging telematics technology and timely issues with this two-day interactive, technical learning event. Featuring presentations by leading researchers in the field of telematics, you will learn about cutting-edge advances in telematic systems and components including the requirements, constraints and regulatory issues. The program will also cover the challenges industry faces with telematics from the various perspectives of the customer, the service provider and the OEM.



**SAE marketing solutions help you to successfully CONNECT with this highly-targeted audience of engineering professionals!**

## AGENDA

### Tuesday, April 20, 2004 · Telematics Systems

- 9:00 a.m. **Welcome and Introduction of Keynote Speaker**  
*Dr. Daniel N. Aloï, Manager, Product Development & Manufacturing Center, Oakland University*
- 9:15 a.m. Keynote Address: **The Global Business of Telematics**  
*K. Venkatesh Prasad, Group Leader, Ford Motor Company*  
Emergent trends and requirements for automotive telematic systems worldwide.
- 10:00 a.m. **Telematic System Architectures**  
*Dr. Patrick E. Dessert, Director, Product Development & Manufacturing Center, Oakland University*  
Framework of telematic systems from a systems engineering perspective including the requirements and testing to successfully field a telematic system.
- 10:45 a.m. Break
- 11:00 a.m. **Customer Telematic Trends**  
*Phil Magney, Principal Analyst, Telematics Research Group, Inc.*  
Description of the trends that are appearing from a customer viewpoint regarding vehicle telematics.
- 12:00 p.m. Lunch
- 1:15 p.m. **Telematic Wireless Technology Enablers**  
*Matthew Ronning, Director of Engineering, Sony Electronics*  
Discussion of wireless technology enablers that provide communication and location technology to the vehicle.
- 2:15 p.m. **The Challenge for Embedded Telecommunications**  
*Brian Tucker, Manager, Automotive Business Development, Sony Ericsson*  
Description of the devices and challenges in communications between car and backend.
- 3:00 p.m. Break
- 3:15 p.m. **Telematics Backend Services**  
*David Loose, Sr. Consulting I/T Architect, IBM (invited)*  
Description of the backend data centers and services required to provide various telematic services to driver, dealer and OEM.
- 4:30 p.m. Networking Reception

### Wednesday, April 21, 2004 · Vehicle Integration

- 9:00 a.m. **Welcome and Introduction of Keynote Speaker**  
*Dr. Daniel N. Aloï, Manager, Product Development & Manufacturing Center, Oakland University*
- 9:15 a.m. Keynote Address: **Vehicle Integration**  
*Robert O'Hara, Product Unit Manager of Windows Automotive, Microsoft*
- 10:00 a.m. Break
- 10:15 a.m. **Count the Antennas**  
*Paul A. Tornatta, Jr., Vice President of Product Engineering and Operations, SkyCross*  
Description of the engineering of antennas and how to simulate and model performance on vehicles with an increasing number of antennas.
- 11:00 a.m. **Using Web Services to Increase the Functionality and Configurability of In-Vehicle Systems**  
*Sachin Lawande, Director, Product Management, QNX Software Systems Ltd.*
- 12:00 p.m. Lunch
- 1:15 p.m. **Telematics Design: Aesthetics, Integration and Applications**  
Tier 1 Integrator (invited)  
Making telematic systems look good in vehicles.
- 2:15 p.m. **An Overview of Certification Issues in Automotive Telematics**  
*Dr. Daniel N. Aloï, Manager, Product Development & Manufacturing Center, Oakland University*  
An overview of certification issues in the telematics industry with a case study on a wireless technology.
- 3:00 p.m. Break
- 3:15 p.m. **Telematics - Where Is It Going?**  
*Dr. Patrick E. Dessert, Director, Product Development & Manufacturing Center, Oakland University*  
Summary of symposium results and closing comments.
- 3:45 p.m. Panel Discussion: **Frontiers of Automotive Telematics**  
*Dr. Daniel N. Aloï, Manager, Product Development & Manufacturing Center, Oakland University*  
*Dr. Patrick E. Dessert, Director, Product Development & Manufacturing Center, Oakland University*  
*David M. Grieco, Engineering Consultant, Munro & Associates / MISATS*  
*Sachin Lawande, Director, Product Management, QNX Software Systems Ltd.*  
*Paul A. Tornatta, Jr., Vice President of Product Engineering and Operations, SkyCross*

For more information, visit [http://www.sae.org/contedu/tt\\_frontiers.htm](http://www.sae.org/contedu/tt_frontiers.htm)

### Site and hotel information

Attendees are responsible for making their own travel arrangements. For your convenience, SAE has posted a list of hotels located near the MSU Management Education Center online at "[http://www.sae.org/contedu/tt\\_frontiers.htm](http://www.sae.org/contedu/tt_frontiers.htm)"



**MSU Management Education Center**  
811 West Square Lake Road  
Troy, Michigan 48098

# Prepare for the future as automotive telematic systems gain momentum to meet consumer demands

## Overview

Always on the forefront of leading edge technology in a shifting marketplace, SAE invites you to join us for this symposium designed to identify the technical and business challenges to optimize telematic capabilities on a vehicle from a system perspective. You will learn about the current trends and technological innovations in the telematics arena through presentations by leading researchers, including the trade-offs associated with technical decisions and their impact on the business case. In addition, you will have the opportunity to interact with industry peers and experts in the field to discuss the most pressing issues facing the automotive industry as telematic systems are incorporated into vehicle design.

In this focused, interactive learning environment you will gain up-to-the minute information on industry trends and technology directly from technical experts. First, a detailed picture of the telematic system and components will be presented including vehicle, telecom, computational and network elements along with the requirements, constraints, and regulatory issues associated with each. On the second day, the program will be devoted to the challenges related to the development of these components to optimize deployment of the telematic system from the customer, service provider and OEM perspectives.

## By the conclusion of the program, you will gain an increased understanding of:

- Telematic architectures & alternatives
- Technical limitations of components
- Current trends and research areas in vehicle telematics
- Components of business cases for telematics
- Required testing for vehicle telematics

## Organizing Committee

Dr. Daniel N. Aloj, Manager, Product Development & Manufacturing Center, Oakland University

Dr. Patrick E. Dessert, Director, Product Development & Manufacturing Center, Oakland University

**CONNECT with this highly-targeted audience of engineering professionals!**

## High-impact, cost-effective marketing solutions

Promoting your company at this highly-focused industry event is an easy, cost-effective way to distinguish your company from the competition and build relationships with influential telematics players. The telematics design and supply community is invited to showcase your products and services with tabletop displays and increase the visibility of your company at this exclusive event through sponsorship and/or advertising opportunities. Learn how to successfully (and economically) market your company to this targeted audience of engineering professionals by visiting [http://www.sae.org/contedu/tt\\_frontiers.htm](http://www.sae.org/contedu/tt_frontiers.htm) and contact the SAE Sales Team today at 1-724-772-7116 or E-mail [exhibitions@sae.org](mailto:exhibitions@sae.org).

### A \$1,500 tabletop display fee includes:

- Display space with one 6 foot x 30 inch table with two chairs
- One (1) complimentary Symposium Registration (includes lunch and refreshment breaks, evening networking reception, and handout materials)
- Recognition in the event handouts

### Sponsorship Opportunities

Evening Networking Reception .....	\$5,000
Continental Breakfast .....	\$3,000 per day
Morning Breaks .....	\$1,500 per day
Daily Lunches.....	\$4,000 per day
Afternoon Refreshment Breaks .....	\$2,000 per day

### Sponsorship Packages

Gold Level .....	\$10,000
Silver Level.....	\$5,000
Bronze Level.....	\$3,000

# For the latest developments in telematics technologies, turn to SAE... industry's authoritative technical resource

## Understanding Automotive Electronics, Sixth Edition

The sixth edition of Understanding Automotive Electronics covers the most recent technological advances in operation and troubleshooting of electronic systems and components, including low-emission standards, on-board diagnostics and communication, digital instrumentation, and digital engine control. With extensive revisions, the sixth edition of this popular book is a practical text, suitable for the automotive technician, student, enthusiast, or professional who wants to upgrade his or her background in electronic systems found in the automobile.

Topics include:

- basic structures and systems
- components, subsystems, and systems
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- specific systems and subsystems: powertrain, suspension, braking, and steering
- aspects of vehicle motion control: instrumentation, navigation, telematics, occupant safety, and diagnosis
- recent developments: hybrid vehicles, dual voltage electrical buses, and advanced cruise control
- future trends: variable valve timing, stability augmentation, and advanced telematics technology

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## Automotive Telematics: An Introduction into the Technical Aspects of Automotive Telematics with Reference to Business Model and User Needs

Axel Fuchs

*It is very important to understand the value each telematics service can provide for the consumer, the commercial user, the service provider, and the automaker.*

Author, Axel Fuchs, Motorola, Inc., discusses automotive telematics from a technical perspective, with reference to the business model and to the value for the user. The three main entities of the system framework which provide critical capabilities such as wireless communications, positioning, and application computing are discussed along with the variety of enabling technologies. The report describes the various categories of telematics services and products then concludes with an overview of remaining challenges and the focus of current research activities. Chapters include:

- Value Chain and Business Model
- Telematics System View
- Enabling Technologies
- Services and Applications
- Telematics Products

ISBN: 0-7680-0976-6

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E-mail [CustomerService@sae.org](mailto:CustomerService@sae.org) or call 1-877-606-7323 (outside US/Canada 1-724-776-4970).**

## Electrical Arc: A Technical Challenge for 42 Volt Systems Seminar ID#C0121

Sept. 27, 2004 • Troy, MI

- Demonstrate a basic knowledge of arc plasma and its characteristics and to summarize how arc behaves in a switching device - how it forms and how it is extinguished
- Determine whether the existing switches for 12V systems can be used in 42V systems and what design changes need to be made to allow successful switching in 42V systems
- Provide an overview of the challenge of arc fault in 42V systems - why we should be concerned and the cutting-edge technology development available for detecting arc fault and preventing further damages caused by arc fault

## Driver Distraction and Other Human Factors Issues Associated with Telematics Seminar ID#C0107

June 23, 2004 • Troy, MI

- Develop a heightened awareness of driver distraction related issues
- Demonstrate how human factors/ergonomics principles and techniques can be utilized to design telematics devices/displays based on the capabilities and limitations of the customer
- Summarize guidelines, legislation, enabling technology/devices (hands-free headsets, voice recognition technology, etc.), and initiatives devised to reduce driver distraction

To register or for additional details on the above seminars, visit <http://www.sae.org/conteedu>,  
E-mail [CustomerService@sae.org](mailto:CustomerService@sae.org) or call 1-877-606-7323 (outside US/Canada 1-724-776-4970).

**SAE 2004**  
World Congress

**Don't miss the technical sessions on Human Factors in  
Driving and Automotive Telematics!**

Featuring presentations by Ford, Batelle Human Factors Transportation Center, Nissan, Delphi and other organizations leading the research efforts, these sessions will investigate the driver-vehicle interface and optimization of human capabilities to improve comfort, safety, and usability on the road. **Visit <http://www.sae.org/congress> and pre-register to attend SAE World Congress before Feb. 13th! SAE members attend FREE!**