

SAE[®] UPdate

NEWS FOR THE MEMBERS OF SAE

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Duane Tiede begins term as President for '04



Duane Tiede, the retired Vice President of Functional Engineering for CNH Global and consultant in product development for the off-highway and other industries, assumed the role of SAE President on March 12 at the SAE Board of Directors meeting in Detroit following the SAE 2004 World Congress.

Tiede began his career, after earning his graduate degree in 1966, with a job at Deere and Co. Engineering Research Center in Moline, IL. He worked there until 1988, when he joined Case Corp. (now CNH Global) as Director of Product Performance and Evaluation. Soon after, he was appointed Vice President of Engineering for

Worldwide Components. Later, Tiede was appointed Vice President of Functional Engineering, where he had responsibility for engines, drivetrains, hydraulics, cabs, electronics, advanced technology, engineering process, engineering analysis, industrial design, engineering operations, and product test. In that capacity, he supported product teams by developing and implementing technology on all new and current products.

Tiede enjoyed a diverse range of work throughout his career. "I've had the opportunity to work in a variety of roles with a range of responsibilities and have been exposed to different areas and technologies," Tiede said. "Those were always growing opportunities and seemed to open the door to the next opportunity."

Each new President brings specific goals to the job. Tiede, a 37-year SAE member, has selected Future Power Systems as one of his Presidential focus areas. He will also continue two of SAE 2003 President Jack Thompson's focuses—Systems Engineering and Digital Product Development—following the tradition carried out by SAE Presidents before him. All three areas he has identified as having commonality across industries SAE serves and as being of interest to SAE's younger members. These focus areas will become topics for technical sessions, some specialty conferences, papers, publications, and standards (where appropriate). Tiede will

also talk about the focuses in many of his presidential presentations.

Future Power Systems—Tiede explained that the major drivers of future power systems are emissions regulations, fuel economy, energy sources, and cost. Alternative power systems being developed, according to Tiede, include advanced diesels and gasoline engines, hybrids and fuel cells, as well as new drivetrains including electric drives, other continuously variable transmissions (CVTs), and electrically shifted, step mechanical transmissions. Power systems are the key to the mobility industry, he believes, and these future power system drivers will determine which products succeed and which fail.

Systems Engineering—Future powertrains and vehicles, Tiede believes, will be highly complex systems requiring sophisticated evaluation of different alternatives and tradeoffs between subsystems. A systems engineering approach will be required to determine the appropriate functionality of each subsystem and requirements at each interface. Tiede explained that meeting future emissions regulations is a good example of where system tradeoffs must be analyzed to select the optimum combination of fuel economy, heat rejection, packaging, cost, reliability, and emissions.

"The aerospace industry has extensive systems engineering experience, and SAE can help transfer that knowledge from aerospace to other industries and provide

examples of the systems approach to optimizing complex solutions," he said.

Digital Product Development—Tiede explained that "the use of computer modeling to improve quality while reducing costs and time to market will be very important to the heavy-duty industry as entire product lines must be revised several times in the next 10 years just to meet emissions requirements. These programs will have to include other product improvements to remain competitive, so there is a very significant engineering task required."

Beyond his primary focus areas, Tiede has other goals he intends to pursue during his tenure as President. "The overall challenge for the organization is figuring out how to deliver value to all of our constituents—members, companies, academia, and government," he said. Many changes have occurred in the world, he explained, including industry consolidation and changing needs of younger members. "We have to determine, as a society, how to proactively respond to the constant changes," he said. According to Tiede, the Board of Directors is already exploring this issue. "The society has made some progress with MOUs (memorandums of understanding) with other engineering societies worldwide. We need to emphasize and continue these relationships."

With the global makeup of SAE's membership and the success of its focused technical meetings, Tiede wants to further

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SAE strengthens OEM coalition for the World Congress—General Motors, BMW AG, Toyota to host events from 2005 through 2007

SAE has reached agreements with the host companies for its 2005 through 2007 SAE World Congress events. General Motors Corp. previously agreed to host the SAE 2005 World Congress, while BMW AG (Bayerische Motoren Werke) will now host the 2006 World Congress event, and Toyota Motor Corp. will host in 2007.

SAE in recent years has sought to build a strong coalition of OEM support and international representation for its flagship event, held each year at Cobo Center in Detroit, MI.

General Motors has hosted the SAE World Congress many times over its 58-year history. BMW AG became the first ever European-based manufacturer to

host the event when it did so in 2000. Toyota Motor Corp. will become the first manufacturer with headquarters in Asia to do so when it takes the reins in 2007.

"Having host company agreements from such top-notch companies on three continents this far in advance is a terrific development for SAE World Congress. With Ford's great support this year, including Phil Martens, Group Vice President, Product Creation, Ford North America, serving as General Chairperson, General Motors hosting the SAE centennial meeting next year, and then to add companies the caliber of BMW AG and Toyota in '06 and '07 is a best-case scenario

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Leading Our World In Motion 1905-2005

SAE FOUNDATION

Delphi's J.T. Battenberg, III to receive SAE Foundation 2004 Manufacturing Leadership Award



J.T. Battenberg, III

On May 12, 2004, Ford Field in Detroit, MI, will be home to the 2004 SAE Foundation Banquet where J.T. Battenberg, III, Chairman, Chief Executive Officer and President of Delphi Corp., will receive the Manufacturing

Leadership Award in recognition of his outstanding career.

"J.T. is most deserving of this award," said Don Ableson, Banquet Chairman. "Under his leadership, Delphi became an independent company ranking 57th in the Fortune 500 in its first full year of independence. J.T.'s vision and business savvy have positioned Delphi as one of the premier supplier companies in the world. He is highly regarded not just in our industry but also in the community where he serves on several corporate and non-profit boards."

Battenberg began his career at General Motors where he held numerous positions early in his career including Assembly



Plant Superintendent of Industrial Engineering, Comptroller, Production Manager, and Plant Manager. He went on to assume increasing leadership roles within the company. In 1992, Battenberg became Vice President and Group Executive of GM's Automotive Components Group (ACG) Worldwide. Two years later, he was elected a Senior Vice President and President of the group. In July 1995, he was elected Executive Vice President of GM and President of Delphi (formerly ACG Worldwide). He also served as a member of GM's President's Council, the top policy-making group for the company.

To join the SAE Foundation in recognizing Battenberg, contact the Foundation office at 724.776.4841 ext. 7371. In addition to the Manufacturing Leadership Award, the Foundation will recognize more than 25 other suppliers with supplier innovation awards in a variety of categories.

MESSAGE FROM THE PRESIDENT

A new SAE President: another change

I want to thank you for the opportunity to serve SAE as your 2004 President. It is an honor and a humbling experience to serve this organization in its 100th year. I am looking forward to the year with great anticipation for the many interactions I will have with our SAE constituents: members, students, companies, academia, government, and sister societies around the world.

Membership in SAE has been a part of my professional life for more than 37 years while working in the off-highway equipment industry. I spent much of my career at John Deere and the last 12 years at CNH Global. Over that time, I have witnessed many changes in our society and the world around us, some examples being industries have consolidated; more engineering is done at the Tier 1, 2, and 3 levels; we operate in a global economy; the work day has grown longer; and members have less time available for SAE activities.

The only constant is change. The most significant characteristic of the global changes is that we, as SAE, have no control over them. Our response needs to be to recognize that these changes are happening and develop proactive strategies that capitalize on the opportunities they create.

SAE has recognized these opportunities and has grown to a global organization with more than 85,000 members around the world. We have been successful because we have changed, but we must proactively continue to find ways to deliver value to our constituents in everything we do. Delivering value will be the overarching focus of my presidential year. I will also have technical focus areas that I will write about in subsequent articles.

Some examples where SAE is changing and delivering value are:

- Alignment with the Convergence Conference
- Global emphasis including new sections, working agreements, and MOUs with other organizations
- Joint sponsorship of meetings
- Renewed health of the SAE World Congress
- Education and standards activities in new technologies
- Formation of the new Commercial Vehicle Engineering Congress & Exhibition.

One of the areas for which I see the greatest need is to develop new ways to deliver value to individual members who may not be involved on a national level other than in reading publications or surfing the SAE website. The local section has been the face of SAE to most members for many years. Today, some traditional sections are doing well and some are not. We need to evolve the model of a successful section to deliver more value to local members and share best practices globally. I expect this will happen in some nontraditional ways. Some sections are composed of members with widely different technical interests, others with very common technical interests. Section success may be measured in different ways; one large section meeting may be good for some sections, while several smaller, focused technical meetings, or maybe a Webex, may better meet member needs in other sections. The key is that we serve our members by delivering value for their time and money invested in SAE.

I certainly do not have all the answers to the member-value question; I just know that every time I go to an SAE event, I am always impressed by the problem-solving capability that exists within our organization. Let's apply that capability to this question.

Please email me at dtiede@sae.org with your input on the SAE member-value question or any other topic you would like to discuss. I look forward to the year and the opportunity to share thoughts with you monthly in this forum.

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for us," said Dave Amati, Director of Automotive Business for SAE. "When we are able to actively engage companies like these in a leadership role for SAE World Congress, we're finding the event itself continues to transform into something very special."

Jim Queen, Vice President, North American Engineering for General Motors Corp., is the General Chair for the SAE 2005 World Congress. General chairs have not yet been announced by BMW AG and Toyota for the 2006 and 2007 SAE World Congress events. Below are the

dates for the next three SAE World Congress events.

- SAE 2005 World Congress – Sponsored by General Motors Corp.: April 11-15, 2005
- SAE 2006 World Congress – Sponsored by BMW AG: April 3 - 7, 2006
- SAE 2007 World Congress – Sponsored by Toyota Motor Corp.: April 16-20, 2007

All SAE World Congress events will be held at Cobo Center in downtown Detroit, MI.

SAE International

Smart engineers know the importance of keeping their skills razor sharp.

So does SAE.

View our extensive schedule of seminars offered at our Automotive Headquarters in Troy, MI by visiting www.sae.org.

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WASHINGTON REPORT

Environmentally friendly vehicles on display at Reagan International Trade Center

By Doug Read, Managing Director, SAE Washington, D.C., office

The Development and Dissemination of Environmentally Friendly Vehicles (EFVs) conference was recently held at the Ronald Reagan International Trade Center in downtown Washington, D.C. This event was hosted by the Japan International Transport Institute and the Japan Automobile Standards Internationalization Center and included numerous technical sessions and panel discussions.



Doug Read

The development and dissemination of safe, environmentally friendly and affordable motor vehicles are important goals for Japan and the U.S. The exploration of possible paths to reach these goals, based on the knowledge about current and future automotive technology and the availability of fuel sources, is an urgent task for both countries. This conference is intended to offer an opportunity for concerned parties in both the public and private sectors of Japan and the U.S. to share the latest information on the progress of technological studies, as well as policies and programs for the promotion of EFVs.

Keynote speakers included Margo T. Oge, Director, Office of Transportation and Air Quality, U.S. Environmental Protection Agency (EPA); Alan C. Lloyd, Chairman, California Air Resources Board (CARB); Kanji Nakayama, Director General, Japan Ministry of Land Infrastructure and Transport; and Yasuhiro Daisho, Professor, School of Engineering, Waseda University.

Panelists were Yoshio Kimura, Senior Staff Engineer, Toyota Motor Corp.; Gregory Dana, Vice President, Environmental Affairs, Alliance of

Automobile Manufacturers; and Kenji Nagamatsu, Senior Representative, Japan International Transport Institute.

Cars on display included the Honda FCX, Nissan X-Trail FCV, Toyota Prius, DaimlerChrysler F-Cell, Ford Focus PZEV, and General Motors HydroGen3.

In addition, the Alliance of Automobile Manufacturers recently joined with the EPA to introduce a new generation of clean vehicles. Beginning this year, motor vehicles are available that are 99% cleaner than vehicles 30 years ago.

In 1999, through its Tier 2 rulemaking, the EPA addressed automobiles and fuels as one integrated system. Under Tier 2, all passenger cars and light trucks must meet the same stringent emissions standards by 2009. Tier 2 also requires refiners to reduce the sulfur content of fuels by 90%. The introduction of lower-sulfur fuels is intended to ensure that advanced vehicle emissions controls will achieve their full potential.

"Tier 2 represented a significant challenge for automakers and I am pleased to report that we are meeting that challenge," said Alliance President Fred Webber. "For model year 2004, we will exceed the industry-wide requirement by 10% with more than 35% of all new vehicles being Tier 2-compliant. The vehicles represented here are just a few examples of the vehicles available today that meet Tier 2's stringent emissions standards. We are delighted to be here to celebrate this success story."

Select U.S. standards developers explore establishing office in China

Various U.S. standards developing organizations (SDOs) have been working with the Department of Commerce to gain support for the establishment of a

liaison office in Beijing, China. The SDOs currently participating in a consortium to develop the framework for the office, as well as solicit financial assistance from the Department of Commerce Market Developer Cooperator Program (MDCP), include ASME International, ASTM, Underwriters Laboratory (UL), the American Petroleum Institute (API), and the Gas Appliance Manufacturers Association (GAMA). The objectives of this office would include:

- Sector-specific liaison in Beijing providing an established presence in China;
- Interface with U.S. Government offices such as The American Chamber of Commerce, U.S. Commercial Service, U.S. Consulate(s), U.S. Embassy;
- Interface with the Chinese government and appropriate Chinese standards organizations;
- Provide work space for the staff of participating U.S. standards developers while in China; and
- Perform research and knowledge gathering for government regulations affecting U.S. industry, standards promulgation, and trade, industry/economic trends affecting commerce, market access, and compliance, non-government organizations (NGO) involved in standards and certification, copyright and trademark protection, information on specific companies and state-owned enterprises.

The office would also provide assistance in coordinating meetings with government and private industry in China, support in setting up seminars, training, and translations as needed, and promotion of the U.S. standards community, and the U.S. standards and conformity assessment system.

Commerce Secretary Evans speaks at NACFAM event in Washington, D.C.

The National Coalition for Advanced Manufacturing (NACFAM) sponsored its annual conference on March 1 with the keynote speaker being U.S. Department of Commerce Secretary Donald Evans. "Focusing Manufacturing Voices in Washington" was the theme for this year's event.

In addition to its initial purpose of building a higher level of consensus among manufacturing organizations, this meeting also serves as an industry-led appraisal of all recommendations in the Bush Administration's report released by Secretary Evans on January 16, titled "Manufacturing in America: A Comprehensive Strategy to Address the Challenges to U.S. Manufacturers." The specific recommendations in this landmark report, organized under six headings, were highlighted at the conference. Since this report was released following the original organization of the March 1 meeting, the breakout sessions were organized under those six headings—plus a breakout on "Defense Manufacturing," a key topic not specifically covered in the Evans report. An industry executive moderated each breakout, assisted by a facilitator and two to three well-recognized subject matter experts, such as Chris Edwards, Director of Fiscal Policy Studies, The CATO Institute; Dan Danjczek, Vice President, Manufacturers Alliance/MAPI; and Catherine Mann, Senior Fellow, Institute for International Economics.

Each breakout began with a critique of the Evans Report recommendations by attendees, but then was opened up to any other policy recommendations that breakout attendees wished to put on the table for discussion.

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SAE Fuels & Lubricants Meeting
June 8-10, 2004
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Carlo Cucci, Director, Emissions & Fuels, ACEA
Mrs. Loyola de Palacio, VP European Commission (invited)
Kristine Klavers, Technical Analysis Director, International Fuel Quality Center
Kazumasa Katoh, Senior VP Powertrain Engineering, Renault
John Richardson, Manager, Performance Technologies Group, Lubrizol Corp.
Stuart Smith, Technology VP, Strategic Accounts & Business Marketing, BP

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Keynote speakers include:
John H. Davis, Producer/Host/Creator, MotorWeek
Jeffrey W. Runge, Administrator, NHTSA
Thomas G. Stephens, Group Vice President, GM Powertrain

Fuel Cell Plenary Session panelists include:
John Heywood, Director, Sloan Automotive Laboratory, MIT
Byron McCormick, Executive Director, General Motors Corp.
Richard Mooror, Deputy Assistant Secretary for Technology Development, U.S. DOE
Richard Zalesky, President, Hydrogen Business Unit, ChevronTexaco Technology Ventures Company

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MEETINGS UPDATE

Meetings and symposia schedule

For more information about meetings and symposia, call SAE Customer Service toll-free at 877.606.7323 (724.776.4970 outside the U.S. and Canada). Additional meeting details can be found on SAE's website at www.sae.org/calendar/meetings.htm; symposia details at www.sae.org/calendar/toptecs.htm.

SAE Ground Vehicle Design & Manufacturing Events		
Frontiers of Automotive Telematic Systems Symposium	April 20-21 2004	Troy, MI
Automotive Dynamics, Stability & Controls Conference and Exhibition	May 4-6 2004	Detroit, MI
*Designing Electronic Powertrain Controls	May 4-6 2004	Austin, TX
Government/Industry Meeting	May 10-12 2004	Washington, DC
Nanotechnology - Inner Value Symposium	May 11-12 2004	Pittsburgh, PA
Statistical Energy Analysis (SEA) Symposium	May 11-14 2004	Troy, MI
Highway Vehicle EDR Symposium	June 3-4 2004	Ashburn, VA
Fuels & Lubricants Meeting & Exhibition	June 8-10 2004	Toulouse, France
Digital Human Modeling for Design and Engineering (DHM)	June 15-17 2004	Rochester, MI
Automotive Alternate Refrigerant Systems Symposium	June 29-July 1 2004	Scottsdale, AZ
Homogeneous Charge Compression Ignition Symposium	August 10-11 2004	Berkeley, CA
International Body Engineering Symposium	September 21-22 2004	Troy, MI
2004 International Continuously Variable and Hybrid Transmission Congress	September 23-25 2004	San Francisco, CA
Small Engine Technology Conference (SETC)	September 27-30 2004	Graz, Austria
AWD (All-Wheel-Drive) Systems, Security, and Driver Interaction Symposium	Sept. 27-Oct. 1 2004	Ottawa Lake, MI
22nd Annual Brake Colloquium & Exhibition	October 10-13 2004	Anaheim, CA
Convergence 2004	October 18-20 2004	Detroit, MI
DoD Maintenance Symposium & Exhibition	October 25-28 2004	Houston, TX
Powertrain & Fluid Systems Conference & Exhibition	October 25-28 2004	Tampa, FL
SAE Commercial Vehicle Engineering Congress and Exhibition	October 26-28 2004	Chicago, IL
SAE Aerospace Design & Manufacturing Events		
General Aviation Technology Conference & Exhibition (GATC)	April 20-22 2004	Wichita, KS
Aerospace Friction Stir Welding Symposium	June 10-11 2004	Albuquerque NM
Digital Human Modeling for Design and Engineering (DHM)	June 15-17 2004	Rochester, MI
34th International Conference on Environmental Systems (ICES)	July 19-22 2004	Colorado Springs, CO
Aerospace Manufacturing and Automated Fastening Conference & Exhibition	September 21-23 2004	St. Louis, MO
DoD Maintenance Symposium & Exhibition	October 25-28 2004	Houston, TX
*Meetings at which SAE seminars will be conducted.		

Preparing for the future

By Jim Smith, Engineering Meetings Board Chair

I've been reading Jack Thompson's "Message from the President" over the course of this year and it has inspired me to write. My involvement with SAE began 20 years ago. It has been very fulfilling and has had a direct, positive impact on my professional career. I don't see my involvement slowing down anytime soon. I am the current Chair of the Engineering Meetings Board (EMB). The EMB is one of SAE's Operating Board Committees (OBCs) reporting to the Board of Directors. The dedicated volunteers that participate in the groups, activities, and committees within the EMB are focused on organizing conferences, exhibits, seminars, academies, symposia, and other learning curriculums. Lifelong learning is one of SAE's core competencies. All of this work is dynamic and organized by an equally dynamic group of professional volunteers. My hat is off to all of them.



Jim Smith

SAE is undergoing a continual evolution to bring you the knowledge to make you a successful professional. But this evolution is by no means smooth or gradual. Dramatic and accelerated changes have occurred in the past two years that will continue in response to the future needs of the membership. I would like to share some of those changes that are being implemented.

SAE Professional Development remains the mainstay of activity in providing seminars, academies, and professional development. After several years of declining seminar enrollments at various nationwide seminar sites, including those held in conjunction with conferences, SAE has limited open-enrollment seminar offerings to SAE Automotive Headquarters in Detroit and during the SAE World Congress. Average enrollment and overall run rate have both increased as a result; enrollments reached the highest number since 1999 at the SAE 2003 World Congress.

New formats to better suit your needs have resulted in the innovative new e-Seminar format, an interactive CD-ROM. The first offering of this new approach was the Diesel Engine Technology seminar featuring full-motion footage of the instructor teaching with accompanying PowerPoint slides. Additional e-Seminars on IC engines and catalytic converters are currently under production. There has also been an expanded use of the telephone-webcast format, offering seven 90-minute to 2-hour programs, which have enrolled more than 140 company sites and touched an estimated 2000 learners.

SAE, Kettering University, and Walsh College launched relationships whereby SAE Professional Development courses can be applied to master's degrees and professional certificates. Kettering, in particular, agreed to accept roughly 95% of SAE's courses as eligible toward these advance degree programs.

Of particular note, SAE has successfully fulfilled requirements to become an authorized provider of continuing education units (CEUs) through the International Association of Continuing Education and Training (IACET). As an Authorized Provider, SAE can now award the IACET CEU, regarded by many as the hallmark of quality in continuing education and training.

Conferences have always been a recognizable "feat" performed by SAE. Most everyone can relate to the SAE World Congress or the SAE Aerospace Congress. But, did you know that SAE organizes some 25 events annually? Hundreds of tireless volunteers contribute from all industrial segments. They give of their valuable time to share new technologies, methodologies and basically good engineering practices. Why do they volunteer? They get as good as they give! Committee members, organizers and session chairs interact and build lasting relationships with colleagues. They have the opportunity to review, discuss and consider leading-edge developments. On top of all of that, they are recognized by their peers as "catalysts" in solving engineering and technical issues.

Declining attendance often due to travel restrictions and increased overhead costs have challenged, and will continue to challenge, the success of SAE conferences. The EMB has had to address these issues with some realistic measures such as implementing and increasing attendance fees and the reductions in non-value amenities. These changes are necessary to help preserve the value everyone receives from these meetings. But most importantly, they allow the EMB to invest in the future of SAE. The revenue streams from these events are reinvested back into the society's programs.

More than a stable economic climate is needed; continued industry support is vital. Many key leaders are actively involved in re-evaluating, revamping, and creating new conferences. If you attended the SAE World Congress (this year and last), you saw continued improvement with a strong focus on technology and more business and management offerings. The Commercial Vehicle Engineering Congress & Exhibition is an example of the re-evaluation and creation of a new forum to meet the needs of both the commercial vehicle and off-highway industries. These are excellent examples of industry recognizing the value of these meetings. I believe this is one area we need to be ever vigilant.

As you can see, your society continues to move forward in fulfilling your needs. Members and staff are working together to improve quality, efficiency, and the business position of Engineering Meetings. I encourage you to become involved. There are hundreds of opportunities out there. You can make a difference! If you would like to discuss what is on your mind, please contact me at smith@mail.cira.wvu.edu.

MEETINGS UPDATE

Automotive dynamics, stability and controls conference addresses new technology

Cutting-edge technology which positively impacts how vehicles act and react will be the focus of SAE's Automotive Dynamics, Stability and Controls Conference and Exhibition, May 4-6, at Cobo Center in Detroit, MI.

The event includes seven sessions organized by representatives from General Motors Corp., Delphi Corp., Goodyear Tire and Rubber Co., and the National Highway Traffic Safety Administration, among others. Sessions will cover the latest technologies in chassis control, steering systems, stability enhancement, vehicle dynamics and handling, suspension and ride systems, simulation of control systems, and rollover.

The keynote presentation, "Technology and Architecture of Future Chassis Control Systems," by Heinz Leffler, Vice President, Longitudinal Dynamics at Bayerische Motoren Werke (BMW) AG, will be held on Tuesday, May 4. Leffler will provide an overview of current and future chassis control system technology, as well as an estimation of likely integration steps.

Symposium focuses on statistical energy analysis

Experts in the field of Statistical Energy Analysis (SEA) will explore best practices and advanced techniques in this increasingly important system of noise and vibration analysis at SAE's Statistical Energy Analysis Symposium, May 12-13, at the Michigan State University Management Education Center in Troy, MI.

Featuring presenters from leading companies in the passenger car, aerospace, and marine industries, the symposium will be highlighted by case studies from Ford, General Motors, Boeing, and General Dynamics, as well as FEA/SEA/BEA overviews and an interactive software demonstration. Advanced applications and developments in areas such as model building, MidFrequency approaches, variance and phase analysis, and structure-borne noise modeling will also be discussed.

Two half-day panel discussions will focus on the topics of electronic stability control and rollover. At the "Electronic Stability Control" panel on Tuesday, May 4, representatives from OEMs and suppliers will discuss industry direction. The "Rollover" panel on Thursday, May 6, will feature representatives from government, Consumers Union, the legal profession, and a Tier 1 braking supplier. Subjects will include new anti-rollover braking systems, the New Car Assessment Program, consumer expectations, and litigation.

The exhibit, featuring manufacturers and suppliers of technologies related to braking systems, tires, wheels, steering and suspension systems, and other technologies and components, will be held on Tuesday from 1:00-6:00 p.m., and Wednesday, 9:30 a.m.-3:30 p.m.

To register, or for more information, visit www.sae.org/adsc, call 1.877.606.7323 (in the U.S. and Canada) or 724.776.4970, or email CustomerService@sae.org.

Noise and vibration engineers, engineering managers, computer specialists, and other professionals in the aerospace, passenger car, marine, and off-highway industries will benefit from the discussions of the presenters' real-world experiences in using this cutting-edge analysis technique.

Immediately prior to the symposium, on May 11, SAE will offer a "Statistical Energy Analysis (SEA) Workshop," focusing on the development and use of SEA models for NVH, at SAE Automotive Headquarters in Troy, MI.

To register, or for more information, visit www.sae.org/sea, or call 1.877.606.7323 or 1.724.776.4970 (outside the U.S. and Canada). Attendees registering for the symposium before April 27 will save \$100 on the registration fee.

should clearly state information to judge the individual's capabilities against the following qualifications: field-proven products and/or services, successful protégés, outstanding teams developed, unquestioned integrity, charismatic leadership, and creation of a supportive environment allowing a customer/product focus. The award will be presented at the upcoming Commercial Vehicle Engineering Congress & Exhibition in October 2004.

Submission: For further information and a nomination form, go to www.sae.org/news/awards/list/olsen/.

MORE PRESIDENTIAL COVERAGE

SAE PRESIDENT continued from p. 1

pursue the possibility of virtual sections. "It's another way to look at our membership and attempt to provide value at the local level," he said. "We have to determine the best way to do it." Tiede is excited about the possibility and plans to investigate this concept further in 2004.

Tiede is also working, along with other members and staff, on the new Commercial Vehicle Engineering Congress & Exhibition, slated for October 26-28, 2004. This event will be for all of the heavy-duty industry, both on and off road. "These

industries have changed significantly. With new Tier 3 and 4 emissions regulations and increased electronic content, there is a lot more commonality than there used to be in both technology and the supply base," he said. "I believe SAE can provide value by offering a common meeting for the truck and bus and off-highway industries."

Tiede's final major goal is to work with the 100th Year Anniversary Committee in preparing for the celebration of SAE's centennial year and also prepare SAE for the next 10 to 20 years.

SAE's first Automotive Vice President takes office



Richard Schaum

Richard Schaum took the reins as the newly designated SAE Automotive Vice President during the SAE 2004 World Congress in March, his term running from 2004-2006. This Vice President position was created

in 2000 by a Blue Ribbon Panel of 10 individuals comprising SAE members and nonmembers. The panel concluded that to improve its services to all the industries it serves, SAE needed to get closer to them. The resolution to this challenge was to add three Vice President positions in the aerospace, automotive, and heavy-duty sectors. Aerospace Vice President Bob Spitzer began his term last year; the VP of Heavy-Duty takes office in '05. Each Vice President will serve a three-year term on the Board of Directors.

Schaum brings nearly four decades of automotive industry experience to the position. He spent 37 years with Chrysler in a variety of positions in engineering, manufacturing, and product planning, most recently as Executive Vice President, Product Development and Quality, before retiring in 2003. His career with Chrysler began before he graduated from college. "I was working as a second-shift mechanic while attending Drexel University in Philadelphia during the day when a recruiter came and asked if I would be interested in a co-op assignment at Chrysler in Detroit," Schaum said. "I accepted and began a career which spanned 37 years, 17 jobs, four recessions, and two mergers."

Following retirement from Chrysler, Schaum started working as a consultant in the area of powertrain technology. Through his consulting work, he joined his current employer, WaveCrest Laboratories. There he is the Vice President and General Manager of Vehicle Systems. He is responsible for the development and commercialization of transportation applications involving the company's electric and hybrid-electric propulsion technology.

Schaum has a long history with SAE, being a member for more than 25 years. He initially participated in various Detroit Section activities and later went on to participate in national activities such as serving as Session Chair for the Fuels and Lubricants meeting; planning the Truck and Bus Meeting; and serving as General Chair of the SAE 2003 World Congress.

Schaum already has some ideas of tasks to tackle while in office. "As SAE Automotive Vice President, my goal is to provide leadership in helping SAE continue to grow as the world's best professional society," he said. He explained that SAE will continue to focus its efforts on three primary areas: lifelong learning including the exchange of knowledge and information; automotive voluntary consensus standards; and relationships with outside interests (business, government, academia, etc.).

"Two-thirds of the standards issued by SAE are for the aerospace industry," he said. "I believe we should put more emphasis on automotive standards, both for existing as well as for emerging technologies such as telematics, hybrid-electric propulsion, fuel cells, etc."

Schaum is pleased to have been chosen for this new VP position, and is up for this next exciting challenge he now faces.

CALL FOR NOMINATIONS

Who: Off-highway engineering managers

Award: Sid Olsen Engineering Manager Award

Nomination deadline: May 1, 2004

Award description: This award recognizes an outstanding engineering manager in the off-highway industry. Candidates are nominated by their employees, colleagues, supervisors or the local SAE Section, with the nomination supported by another individual from the same group (*i.e.*, employees, colleagues, supervisor, or SAE Chapter). The nomination and the supporting document

CALLS FOR PAPERS

SAE Brasil 2004 Congress

Paper abstracts due: March 15, 2004

Event date and location: November 16-18, 2004, São Paulo, Brazil

Possible paper topics: Technical papers should be related to one of the several themes described on the SAE Brasil Web site at www.saebrasil.org.br.

Submit abstracts to: Visit www.saebrasil.org.br for details.

2004 SAE Motorsports Engineering Conference & Exhibition

Paper abstracts due: March 25, 2004

Event date and location: Nov. 30-Dec. 2, 2004, Dearborn, MI

Possible paper topics: Braking; chassis/materials; electronics; engines & transmissions; fuels & lubricants; safety; tires & wheels; and vehicle dynamics.

Submit abstracts to: Online submission via www.sae.org/msec.

AWARDS

Engineering educators honored with Teetor Award

Nine engineering educators have been chosen as recipients of SAE's 2004 Ralph R. Teetor Educational Award. These educators were recognized for their outstanding teaching ethics and contributions to academic excellence.

This year's recipients received an expenses-paid trip to the SAE 2004 World Congress and were recognized at the Honors Convocation on March 9. As part of the award, DaimlerChrysler Corp., this year's industry host, planned customized tours, presentations, and personalized one-on-one meetings between its engineers and the academic recipients. These meetings provided an opportunity to discuss research, developing technology, and industry trends, and also began to foster a relationship between industry and academia in which the recipients gained invaluable knowledge to take back to their classroom.

The 2004 Teetor Award recipients are:

William J. Altenhof, University of Windsor. Altenhof is an Assistant Professor in the Mechanical, Automotive & Materials Engineering Department at the University of Windsor. His research focuses on structural crashworthiness and includes research projects associated with the design of automotive structural components for crashworthiness as well as vehicle/occupant interactions and the potential of injury. He is also involved in research related to the analysis of structures under dynamic loads employing both experimental and numerical methods. He teaches both undergraduate and graduate level courses, mainly in design. Altenhof is a member of SAE, serving as faculty advisor to the University of Windsor-SAE Student Chapter from the fall of 1999 until the summer of 2003. He has also acted as faculty advisor for the University of Windsor SAE Mini-Baja teams and Formula SAE teams. His other professional society memberships include the Professional Engineers Ontario (PEO) and the Society for Experimental Mechanics (SEM). Altenhof earned his doctorate, master's degree, and bachelor's degree in mechanical engineering from the University of Windsor.



William J. Altenhof

Jaydev P. Desai, Drexel University. Desai is an Assistant Professor in the Mechanical Engineering and Mechanics Department at Drexel University in Philadelphia, PA. His teaching and research focuses on medical robotics, specifically in the areas of reality-based soft-tissue modeling, modeling and control of robotic systems, and providing the sense of touch to the user (haptic feedback). He spearheaded the development of a state-of-the-art robotics laboratory at Drexel called the Program for Robotics, Intelligent Sensing, and Mechatronics (PRISM) Laboratory. This laboratory performs leading-edge research in reality-based soft-tissue modeling, modeling and control of robotic systems,



Jaydev P. Desai

providing haptic feedback to the user while interacting with objects in a remote environment, and robot-assisted surgery. A recipient of the National Science Foundation CAREER Award, he is a member of the American Society of Mechanical Engineers (ASME) and the Institute of Electrical and Electronics Engineers (IEEE). He received his doctorate in mechanical engineering and applied mechanics from the University of Pennsylvania in Philadelphia and was a post-doctoral fellow at the Division of Engineering and Applied Sciences at Harvard University. He also has two master's degrees from the University of Pennsylvania (one in mathematics and one in mechanical engineering and applied mechanics). His bachelor's degree is from the Indian Institute of Technology, Bombay, India.

Daniel E. Fisher, Oklahoma State University. Fisher is an Assistant Professor in the Mechanical and Aerospace Engineering Department at Oklahoma State University, where he teaches undergraduate and graduate courses in thermal systems design. In addition, he has mentored eight senior capstone design teams, six related to thermal systems research and two related to the development of a car for the Formula SAE student design competition. He serves as the faculty advisor to the Formula SAE Racing Team as well as the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) student branch. Fisher's research interests are in the areas of energy conversion and design of thermal systems. In recent years, he has focused on the development of energy and thermal load calculation procedures for air-conditioning systems. He has developed algorithms and models that have a number of industrial applications including automotive air-conditioning system design and simulation. He recently won an R&D 100 Award, along with collaborators from the University of Illinois, Lawrence Berkeley National Laboratory, and four other research groups for development of the EnergyPlus building energy simulation program. Fisher is a member of SAE, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), the American Society of Mechanical Engineers (ASME), and the International Building Performance Simulation (IBPSA). He earned his bachelor's degree, master's degree, and a doctorate in mechanical engineering from the University of Illinois. He also has a bachelor's degree in international business from Carthage College.



Daniel E. Fisher

Kenneth A. Gall, University of Colorado. Gall is an Associate Professor in Mechanical Engineering at the University of Colorado. His area of expertise is the deformation and failure of engineering materials, such as shape memory alloys and polymers, lightweight castings, biomaterials, and nanomaterials,



Kenneth A. Gall

with a special emphasis on multi-scale experimentation and modeling. He teaches various design and materials courses, and has won both university- and college-level teaching awards from the university. A recipient of the Presidential Early Career Award for Scientists and Engineers (PECASE) from the Department of Energy, Gall has published more than 60 refereed journal articles and 25 refereed conference proceedings in the general area of the mechanical behavior of materials. He is a member of the American Society of Mechanical Engineers (ASME), ASM (The Materials Information Society), the Materials Research Society (MRS), and SAE. He received his doctorate, master's and bachelor's degrees in mechanical engineering from the University of Illinois in Urbana-Champaign.

Yuebin Guo, University of Alabama. Guo is an Assistant Professor in the Mechanical Engineering Department at the University of Alabama. His research focuses on several areas including manufacturing process simulation/optimization, surface integrity and product performance, and sensor-based intelligent monitoring/control systems for precision manufacturing. He teaches several courses at the university and has developed two new courses, Integrated Process Design and Product Development and Computational Manufacturing, for seniors and graduate students. Guo has been the recipient of the Society of Manufacturing Engineers' (SME) Jiri Tlustý Outstanding Young Manufacturing Engineer Award, and has also received the Research Advisory Committee Award and Innovative Instruction Faculty Award from his university. He is a member of SAE, the Society of Manufacturing Engineers (SME), the American Society of Mechanical Engineers (ASME), and the American Society of Engineering Education (ASEE). He earned his doctorate in manufacturing engineering from Purdue University, his master's degrees from the University of California, Berkeley, and Tsinghua University, and his bachelor's degree from Shandong University of Technology in China.



Yuebin Guo

Kemper Lewis, University at Buffalo. Lewis is an Associate Professor in the Mechanical and Aerospace Engineering Department at the University at Buffalo. His research focuses on the development of decision support tools for large-scale systems characterized by multiobjectives, multiple subsystems, and multidimensions. Foundational to this research is fundamental work in multiobjective optimization, game theory, scientific visualization, decision theory, and meta-modeling. Application of these concepts have included flexible engineering systems, decentralized design processes, group decision-making, visual design steering, and probabilistic optimization. He teaches both undergraduate and



Kemper Lewis

graduate level courses, is the Director of the combined BS/MBA programs in both mechanical and aerospace engineering, and also serves on the undergraduate education committee. Lewis has been the recipient of 17 different awards including Tau Beta Pi's Professor of the Year (2002-2003), the Black and Decker Best Paper Award at ASME Design Engineering Technical Conferences (Design Automation, 2002), and the National Science Foundation CAREER Award (1999). He is a member of SAE, the American Society of Mechanical Engineers (ASME), the American Institute of Aeronautics and Astronautics (AIAA), the American Society of Engineering Education (ASEE) and International Society for Structural and Multidisciplinary Optimization (ISSMO). He earned his doctoral and master's degrees in mechanical engineering from Georgia Institute of Technology, and a dual bachelor's degree in mechanical engineering and mathematics from Duke University. He also has an M.B.A. from the University at Buffalo.

LTC Darrell D. Massie, United States Military Academy. Massie is an Associate Professor in the Department of Civil and Mechanical Engineering at the United States Military Academy in West Point, NY. His research focuses on alternative and renewable energy. He has also been the principle investigator on several projects related to artificial intelligence and automated self-learning controls. He teaches undergraduate level courses, and has served as faculty advisor for several student teams and projects, including the Sunrayce Team (solar-powered car), the Autonomous Self-navigating Vehicle Team, the Intelligent Power Plant project, and the Neural Network Ice Jam Prediction Team. Massie has twice been the recipient of the Phi Kappa Phi award for excellence in research and has received several military commendations. He is a member of SAE, the American Society of Mechanical Engineers (ASME), the American Society of Engineering Education (ASEE), and the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE). He earned his doctoral and master's degrees in civil engineering from the University of Colorado at Boulder, and his bachelor's degree from Colorado State University.



LTC Darrell D. Massie

Tariq Shamim, University of Michigan-Dearborn. Shamim is an Associate Professor in the Mechanical Engineering Department at the University of Michigan-Dearborn. His research focuses on computational thermo-fluids with major emphasis on combustion, emission control, fuel cell, and thermal spray. His research is supported by the National Science Foundation, the U.S. Department of Energy (DOE), the U.S. Department of Defense, and the automotive industry.



Tariq Shamim

See **TEETOR AWARD** p. 10

AWARDS

Arch T. Colwell Merit Award given to nine recipients

SAE authors and co-authors of nine outstanding SAE 2002 Technical Papers were selected to receive the Arch T. Colwell Merit Award, and will be recognized at this year's 2004 SAE Honors Convocation on Tuesday, March 9, in Detroit, MI.

This award, established in 1965, is administered by the Arch T. Colwell Merit Award Board. The award recognizes authors of papers of outstanding technical or professional merit presented at a meeting of the society or any of its sections during the calendar year. Papers are judged primarily for their value as new contributions to existing knowledge of mobility engineering. The award consists of a certificate, and is presented during the SAE World Congress.

This award is funded through a generous contribution from Mr. Colwell, 1941 SAE President, who served SAE in many capacities for nearly 50 years. His own technical papers were outstanding examples of engineering excellence and clear writing.

The 2002 SAE Arch T. Colwell Merit Award Recipients are:

Ivan Arbuckle, Author, **Steven Naylor** and **Francis Worthington**, Co-Authors, "Optimization Strategies Applied to Exhaust System Design" 2002-01-0812

Arbuckle of ArvinMeritor has been developing automotive muffler systems for ArvinMeritor in Preston, England, since 1999. One responsibility of this R&D role included improving design methods with a view to reducing development time and improving product performance, which led to an interest in and the application of genetic algorithms. Previously, he had been with the National Engineering Laboratory in Glasgow, Scotland, working on a broad range of technologies including wind turbines, nuclear submarines, pumps, and engines. Arbuckle received his degree in mechanical engineering from the University of Strathclyde in 1991.



Ivan Arbuckle

Daniel E. Green, Author, **Kevin Black**, Co-Author, "A Visual Technique to Determine the Forming Limit for Sheet Materials" 2002-01-1062

Green is Technology Manager of the Metal Forming research team at the Industrial Research and Development Institute (IRDI) in Ontario, Canada. Since joining IRDI in 1997, he has focused on researching formability analysis including developing techniques for determining FLD, studying the influence of prestrain on formability, and investigating the influence of drawbeads in metal stamping. He also oversees all the hydroforming activities at IRDI. Green has a Ph.D. in mechanical engineering from the Université de Sherbrooke, Québec. His undergraduate engineering work was completed at the Université de Metz in France.



Daniel E. Green

Bassam Jody, Author, **Edward Daniels** and **Joseph Pomykala**, Co-Authors, "A Process to Recover Carbon

Fibers From Polymer Matrix Composites" 2002-01-1967

Jody is currently a Project Manager with Argonne National Laboratory and has been with Argonne since 1989. His work focuses on the development of new separation, extraction, and industrial processes. He has five patents and is the author of more than 50 publications related to the development, application, evaluation, and economics of materials separation processes, energy conversion, and energy production processes and technologies. He and his research team have been recognized with a number of honors including the 2000 Discover Magazine Award for Technological Innovation (Humanitarian Category), the 2000 R&D 100 Award, and selection as the 2003 Inventor of the Year by the Intellectual Property Law Association of Chicago. Jody received his master's degree in chemical engineering and a Ph.D. in thermo-mechanical engineering from the University of Illinois at Chicago.



Bassam Jody

Hidetoshi Kusumi, Author, **Shouji Abo**, **Yoshihide Nii**, **Katsunori Yagi**, **Shigeki Furuta**, **Masami Morikawa**, and **Hirohide Satoh**, Co-Authors, "42V Power Control System for Mild Hybrid Vehicle (MHV)" 2002-01-0519

Kusumi is currently Senior Principle Engineer at the Advanced Technology Office of Toyota Motor Engineering & Manufacturing Europe (TMEM) in Belgium where he works on HEV-related research. His previous engineering accomplishments include developing the IGBT modules for PRIUS, Toyota's first hybrid vehicle, and developing the 42-V power control unit for mild hybrid vehicles. Kusumi received his bachelor's degree in engineering from Toyota Technological Institute (TTI) in 1990.



Hidetoshi Kusumi

Zbigniew Lozia, Author, **Dariusz Zardecki**, Co-Author, "Vehicle Dynamics Simulation with Inclusion of Freeplay and Dry Friction in Steering System" 2002-01-0619

Lozia has been a Professor in the Faculty of Transportation at Warsaw University of Technology since 1977. He has served as a member of research teams and the leading person of many projects sponsored by the State Committee of Scientific Research, car and truck producers (Star S.A., Daewoo), and the Military University of Technology. Lozia has authored 113 publications in Polish and English. He has a master's degree in transportation and a Ph.D., both from Warsaw University of Technology.



Zbigniew Lozia

Chris May, Author, **Fred Girshick** and **Kenneth Henderson**, Co-Authors, "Development of Mini-Rotary Viscometer Measurement Techniques for Highly Sooted Diesel Engine Oils" 2002-01-2795

May is currently a Senior Research Associate in the Engine, Drivetrain, and Basestocks Division of Imperial Oil Sarnia Research. He has been with Imperial Oil since 1981, working on the development and testing of all types of engine, gear, and transmission lubricants with particular focus on low-temperature rheology. May is a past recipient of the 1988 SAE Arch T. Colwell Merit Award and was a Ralph R. Teeter Visiting Lecturer. He has been very active in industry associations over the past 22 years, including both SAE and ASTM, and has authored 38 publications. May received his Ph.D. in Organometallic Chemistry from the University of Toronto in 1980.



Chris May

Derek Riley, Author, **Mark Bonner**, **Peter Hine**, and **Ian Ward**, Co-Authors, "CURV - A New Lightweight, Recyclable Material for Automotive Applications" 2002-01-2039

Riley is a Market Development Manager with BP Amoco. He joined BP Amoco in January 2001 as part of a small team brought together to commercialize Curv self-reinforced thermoplastic composites. Previously, he had been at the University of Leeds in the United Kingdom where he served as Commercial Director of several spin-off companies formed to commercialize polymer-based technologies developed at the university. Riley is a chartered engineer and has a bachelor's degree in Fuel and Combustion Science from the University of Leeds.



Derek Riley

Ronald Stevens, Author, "A New Fluoroelastomer for Fuel System Seals" 2002-01-0632

Stevens is a Scientist with DuPont Dow Elastomers and has been with the company since 1979. Currently, he works in the Viton technical service and development group. Stevens has been in the general rubber industry for 30 years. He



Ronald Stevens

was a key member of the development team that created Viton Improved Rheology Polymers as well as new specialty fluoroelastomers such as Viton GFLT and Viton Extreme ETP. His most recent assignments at DuPont Dow Elastomers have included working on the development of new peroxide-cured types of Viton made with Advanced Polymer Architecture technology. He is a member of several professional organizations including SAE, Rubber Division-ACS, Northeast Ohio Rubber Group, and the Energy Rubber Group. Stevens is a graduate of Ohio University with a bachelor's degree in chemistry and has done postgraduate work in polymer science at the University of Akron.

Shigeo Yamamoto, Author, **Takahiro Satou** and **Motoki Ikuta**, Co-Authors, "Feasibility Study of Two-Stage Hybrid Combustion in Gasoline Direct Injection Engines" 2002-01-0113

Yamamoto is a Manager at the Advanced Powertrain Development Department of Mitsubishi Motors Corp. He has been with Mitsubishi since 1991 and is considered an expert in direct-injection gasoline engines. Previously, he worked for Yamaha Motor Corp. as a researcher of gasoline SI engines. Yamamoto has published 10 technical papers. He received his master's degree in engineering from the Tokyo Institute of Technology in 1986.



Shigeo Yamamoto

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031915

MEMBERS UPDATE

April membership renewal time is here

Check your SAE Membership card...if you have an expiration date of April 30, now is the time to take action and renew for 2004. If you have not already done so, here are your options:

Automatic renewal: This new feature from SAE is perfect for you if you do not want to receive membership renewal reminders every year. You give authorization for SAE to charge your credit card each year at renewal time and SAE will renew your membership automatically. Plus, you'll save \$10 on your membership dues every year you are in the Automatic Membership Renewal program. See shaded box.

Renew online: This is a fast, easy way to renew, and you can save money, too. Reduce your dues from \$90 to \$85 by renewing on the SAE website. Just log on to www.sae.org/renew. Payments online are by credit card only, and VISA, MasterCard, American Express, and Discover are accepted. To ensure your privacy, your membership renewal will be processed on SAE's secure server. You will need your login id and password. Call 724.776.4970 or email CustomerService@sae.org for id and password help.

You can save time and money by renewing online, but you save even more time and even more money by enrolling in SAE's Automatic Membership Renewal. See shaded box.

Renew by mail: If you have not yet received a renewal notice in the mail, call 877.606.7323 to request one. Complete your membership renewal form and mail it along with payment, either credit card or check, in the envelope SAE provides.

Renew by phone: Call 877.606.7323 in the U.S. and Canada, 724.776.4970 from other countries, and an SAE Customer

Service Representative will assist you.

Renew by fax: Fax your completed form and credit card payment information to 724.776.0790. To prevent duplicate charges, do not also mail the completed form to SAE.

Save time and money renewing your membership by enrolling in SAE's Automatic Membership Renewal

Save \$10 on your membership every year with Automatic Renewal.

If you never want to receive another renewal notice from SAE, Automatic Membership Renewal—the society's newest renewal feature—is for you. Here's how it works: With your authorization, SAE charges your credit card every year at renewal time and your membership is renewed automatically. You will receive no renewal notices in the mail or by email, which means no forms to fill out and no forms to return. Instead, you will receive notice from SAE that your credit card has been charged and that your membership has been renewed for another year.

There are two very important benefits from Automatic Renewal: First, you will not receive any renewal notices and reminders from SAE, and, second, you will save \$10 on your dues every year you are in the Automatic Renewal program. Of course, you may withdraw from the program at any time and return to the traditional membership renewal process. Call 877.606.7323 for details.

You can save time and money by renewing online, but you can save even more time and money by enrolling in SAE's Automatic Membership Renewal.

Members on the move

John Camp (Mbr'70) has been appointed Senior Advisor for Denso International America, Inc. In his new role, Camp will maintain industry contacts and report to the president regarding practices, developments, and trends within the automotive/supplier industry.

Sean Coleman (Asc'92) has been appointed Director of Sales-OEM Truck Products for Hendrickson International.



Sean Coleman

Terry Helgesen (Mbr'02) has been named Senior Vice President-Marketing for Denso International America, Inc. Helgesen, in his new position, will have overall sales and marketing responsibilities for General Motors, Ford, DaimlerChrysler, Heavy Duty, and Japanese Car Group sales as well as Quality.

Jack Simon (Mbr'87) has joined Westinghouse Savannah River Technology Center as Special Advisory Consultant to the Vice President of Research and Development. Simon is working on hydrogen storage for fuel-cell vehicles and on the hydrogen production, distribution, storage, and refueling issues facing the auto industry as it begins to move to the hydrogen economy. He is a former SAE Washington Fellow.



Jack Simon

Special acknowledgments

David Greene (Mbr'85), a UT-Batelle Corporate Fellow from the Oak Ridge National Laboratory, has been designated a lifetime national associate of the National Academies of Science. Greene has earned a number of achievement awards over the years.

Joseph Huang (Mbr'91), President and Chief Executive Officer of Michigan-based American Systems Technology, Inc. has

been named Michigan Businessman of the Year by Congressman Tom Reynolds, Chairman of the National Republican Congressional Committee.

Jennie-Tai Wang (Aff'98), General Motors Technical Fellow and the Manager of Occupant and Pedestrian Safety Systems for General Motors, has been named a Fellow of ASME (American Society of Mechanical Engineers).

Paul Whitcraft (Mbr'94), Director of Quality Assurance and Engineering at Rolled Alloys, has been elected to the Board of Directors of ASTM International. He will serve on the Board through 2006.

In memoriam

Robert Burkhalter (Mbr'02) passed away in January. He was a member of the Arizona-Nevada Section.

George Mason (Mbr'48) passed away in September 2003. Mason joined Fort Garry Motor Body & Paint Works in 1939 as a draftsman. The company was later renamed Motor Coach Industries (MCI), and Mason worked his way through numerous positions over the years until he was the company's President and Chief Executive Officer. He retired from MCI in 1980.



George Mason

Joseph T. Wentworth (Mbr'53) passed away in January. Wentworth, a retired Senior Staff Research Engineer for General Motors, researched ways of reducing automotive exhaust emissions. He was a recipient of SAE's 1955 and 1962 Horning Memorial Awards. He also won the 1955 Russell S. Springer Award. He authored many technical papers and was awarded 11 U.S. patents.



Joseph T. Wentworth

Nominations are being accepted for SAE Fellow

SAE Fellow is a prestigious grade of membership established to recognize individual members whose engineering or scientific achievements have brought about meaningful advances in the fields of technology covered by SAE. Candidates are considered for election to Fellow by being nominated by an SAE Member or Fellow grade member.

Election as an SAE Fellow is beneficial to all Fellow recipients but also to their employer and nominator. Newly elected Fellows receive valuable rewards such as being honored among industry peers for their noteworthy accomplishment, public

recognition for an industry innovation that will help to bolster their career, and a sense of pride and fulfillment in their personal achievements. Nominating a member colleague offers a sense of pride to have a friend or colleague recognized for their personal engineering or scientific achievements.

The 2004 Nomination form and instructions are located at www.sae.org/news/awards/list/fellow/ or contact Janiece Lang, SAE Membership & Section Programs, at janiec@sae.org or 724.772.7137. All nomination forms are due to SAE by June 1, 2004.

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For up to the minute program and exhibition information visit www.sae.org/comvec

031880

MEMBERS UPDATE

2004 SAE long-term member recipients

The following SAE members, listed by Section, have reached an important milestone of 35, 50, or 70 years of membership in SAE. In addition, members could choose a special certificate of recognition or, in lieu of the certificate, make a donation to the SAE Long-Term Member Scholarship.

35 Years

Arizona

Gary Dunford
John E Groh
J Roger Hobbie
Greg R Johnston
Neal A Matheson

Atlanta

Kenneth W Nelson

British Columbia

James K Gardiner
Denis L Swan

Carolina

Richard E Angell
Robert V Deal
William D Schwab
Joseph J Speth
George R Walrod

Central Illinois

Edgar A Anglin
Allan J Friede
Leonard J Hunsader
Larry A Larson
Marvin L Schneider

Chicago

Hugh L Cole
N Richard Dunteman
Joseph L Eldridge
Gary C Fell
Ralph C Gravrok
Darryl Lynn Hearn
Anton H Hehn
Robert S McKee
Herbert Edward Schultz

Cleveland

Wesley Eddy Jr
Trevor O Jones
John R Martin
Thomas J Sheahan
Roger L Sweet

Colorado

Ian A Alexander
R Richard Meysenburg

Cumberland Valley

Stephen J Chris
R Scott Rice
Harold A Schwartz

Dayton

Jerry W Burns
Robert J Holcshuh
David R Levering
Clark C Simpson
John H Wood

Detroit

Paul A Anton
Richard E Baker
Frank Joseph Bakewicz
B Dale Baughn
Jerry T Beebe
Dennis C Behrendsen
Clemens C Bertell
Dwight Lewis Bliss
James M Bole
Harold E Bolton
Richard Borghi
Trevor J Brown
Gerald Allen Butler
Gilliam Clark Jr
Thomas R Dalzell
Robert O Eccles
Joseph D Feko
Neil E Ferguson
William Fleury
Robert L Furey
Rodney Girolami
Albert J Gonas
Ronald F Green
David Steven Grossman

William W Hamilton
Richard P Hervey
John William Hoard
Sam Jenio
Paul M Johnston
Norbert L Keller
Charles M Keppel
Barry R Lloyd
William P Madigan
Albert J Matzelle
Thomas N McGannon
Richard A McGinnis
Michael L McMillan
Roelf J Meijer
Leo Meredith
Gordon H Mitchell
Clarence Morgan
John W Mowrey
Thomas J Murphy
Turner E Osborne
Gordon A Payne
Harlan Richard Petersen
Robert J Pheiffer
Gary L Poush
Ather A Quader
Jim L Rau
Paul G Reaume
Douglas A Richman
Matthew G Roberts Jr
Richard D Rossio
Stephen P Sambor Sr
Kenneth Schang
Ralph S Shoberg
John P Smreker
Mark F Spreitzer
William J St Louis III
Roger J Storves
Thomas C Sturgeon
Robert Alvin Sutton
Orville K Thiel
John R Treat
David Trumpy
Irving G Usner
Owen J Viergutz
William A Vogelsberg
Philip J Weis
James H White
David P Whitten
William A Yahraus

Eastern Carolina

Clifford Rigsbee
Larry F Stikeleather

Fort Wayne

Richard T Evans
Donald J Just
Michael L Shirley

Indiana

James R Atkinson
Richard J Kakoczki
Eric H Kemp
James Samuel Remick
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Charles R Holt
William F Marshall Sr
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MORE AWARDS

Entrepreneur award established

SAE is pleased to announce the creation of the Heinz C. Prechter Award for Automotive Excellence, an exciting new award that encourages young entrepreneurs in the automotive industry to pursue their dreams and to bring their ideas to fruition.

Each year, SAE will recognize a graduate engineering student, or team of students, from Kettering University or the University of Michigan-Ann Arbor, for developing an entrepreneurial idea that will positively impact the automotive industry. The recipient will receive \$10,000 in seed money to help alleviate expenses associated with the execution of their entrepreneurial idea. Applicants will be judged on the creativity, ingenuity, and practicality of the entrepreneurial idea and how it will positively impact the automotive industry.

The Heinz C. Prechter Award for Automotive Excellence honors the work,

life and memory of Heinz C. Prechter, founder of the American Sunroof Co. (now ASC Inc.). In 1965, Prechter spent \$764 on tools, made a workbench from an old door covered in aluminum, and a sewing machine from a junkyard to start the American Sunroof Co. Today, ASC Inc. is a successful global specialty vehicle and systems company. After Prechter's passing in 2001, General Motors Corp. donated the #2 Chevy SSR (the second production model produced) to the SAE Foundation to provide the seed funds to establish the award in honor of Prechter. ASC developed the unique convertible roof for the SSR. It was the last vehicle project Prechter worked on before his death.

Individuals or teams interested in the Prechter Award can obtain more information and an application at www.sae.org/awards/. As funds become available, the award will be expanded to include other universities.

TEETOR AWARD *continued from p. 6*

He has taught several courses in the area of thermal-fluid sciences, including ones on thermodynamics, heat transfer, thermal systems design, and engine emissions. He has also developed graduate-level courses at the university. Shamim is a recipient of the DoE Summer Faculty Fellowship at Oak Ridge National Laboratory. He is a member of SAE serving on its Transaction Committee. He also serves as a member of the Board of Associates of the Internal Combustion Engine Division, and K-11 and K-20 Committees of the Heat Transfer Division of the American Society of Mechanical Engineers, and is a member of the Combustion Institute. Shamim earned his doctorate in mechanical engineering and a master's in aerospace engineering from the University of Michigan-Ann Arbor. He received a second master's degree in mechanical engineering from the University of Windsor, Canada, and has his bachelor's degree in mechanical engineering from the N.E.D. University in Karachi, Pakistan.

His research is focused on developing new manufacturing processes and devices to enable environmentally friendly transportation, and includes topics such as precision grinding, Electrical Discharge Machining and nano-spark erosion, fuel-cell manufacturing, elastomer machining and scrap tire recycling, infrared temperature measurement for grinding and diesel exhaust aftertreatment filters, manufacturing and characterization of bonded permanent magnets, and diamond wire saw cutting of semiconductor wafer. He has been awarded four U.S. Patents, and has authored 46 journal papers and 29 conference papers. Shih is a member of SAE, the American Society of Mechanical Engineers (ASME), and the Society of Manufacturing Engineers. In 2000, he was awarded the Career Award from the National Science Foundation. He also received the ASME BOSS Award in 1999. He has bachelor's and master's degrees in mechanical engineering from National Cheng Kung University in Tainan, Taiwan, and a doctorate from Purdue University in Indiana.

Albert J. Shih, University of Michigan-Ann Arbor. Shih is an associate professor in the Mechanical Engineering Department at the University of Michigan.



Albert J. Shih

For further information and/or an application for the 2005 award, visit www.sae.org/awards/teetor.htm. The deadline for application is October 16, 2004.

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STUDENT ACTIVITIES

Collegiate Design Series event schedule

April - May 2004

Additional event information is available at www.sae.org/students/student.htm

Aero Design East

Date: April 16-18, 2004

Location: Orlando, FL

Hosted by: SAE Student Chapter of the University of Central Florida

Organizers: Eric Schwartz and Adam Hussemann

Mini Baja West

Date: April 22-24, 2004

Location: Portland, OR

Hosted by: SAE Oregon Section

Organizer: Peter Strause of Western Star Trucks

Walking Robot Challenge

Date: April 28-May 1, 2004

Location: Schenectady, NY

Hosted by: Union College

Organizer: Nick Krouglicof

Mini Baja East

Date: May 6-8, 2004

Location: Montreal, Quebec, Canada

Hosted by: École de Technologie Supérieure (ETS)

Organizer: Simon Constantineau

Formula SAE

Date: May 19-23, 2004

Location: Pontiac, MI

Hosted by: Formula SAE Consortium

Organizer: SAE Collegiate Design Series staff

Correction

In the article titled "2004 Clean Snowmobile Challenge scheduled," which appeared in the March 2004 issue of *SAE Update*, one of the event co-hosts was inadvertently omitted. The event is jointly hosted by William Predabon, Chair of the

Department of Mechanical Engineering-Engineering Mechanics, Michigan Technological University, and Jay Meldrum, Director of the Keweenaw Research Center, Michigan Technological University.

PROFESSIONAL DEVELOPMENT

Virtual product development is the focus of telephone/webcast

The SAE Telephone/Webcast, Virtual Product Development: How Simulation Methods and Digital Models Enhance Physical Prototypes and Testing, will be held on Thursday, April 29, 2004, from 11:30 a.m. to 1:30 p.m. EST. Organized by Jack Thompson from DaimlerChrysler (retired) and SAE 2003 President, this 120-minute Professional Development e-Learning event will bring together a panel of experts to examine the changing role of virtual product development and simulation for ground vehicle applications, explore how industry leaders are managing the tradeoffs between digital prototyping and physical test and measurement, and identify the business and technical rationale for investing in CAE (Computer Aided Engineering) technologies and processes. Among the approaches to be discussed are linear finite element applications pertaining to NVH (Noise, Vibration, and Harshness), durability, performance/fuel economy, and ride/handling; non-linear finite element applications for crash simulation relative to structure, occupant, and restraints; and CFD (Computational Fluid Dynamics) applications for external aerodynamics

and internal air flows. In addition to Thompson, the presenters include Paul A. Du Bois, Consulting Engineer; James Johnson, GM Technical Fellow, Global Performance Integration, General Motors Corp.; and Robert Ryan, Executive Vice President, MSC Software Corp.

SAE Telephone/Webcasts are quick, convenient, and cost-effective and do not require travel. The format features audio delivered by telephone, including presentations, interactive question-and-answer, and open discussion, direct to the participant's home, office, or conference room. Polls are conducted and presentation graphics are delivered over the Internet during the event, with the latter provided in hardcopy for reference.

Registrations for this program are available on a per-site basis. For one fee, individuals can connect or multiple participants can gather in a conference room to share the site connection.

For more information or to register, visit www.sae.org/tele-webcasts or contact SAE Customer Service at 877.606.7323 (724.776.4970 outside the U.S. and Canada).

SAE and Cadpo partner for automotive CAD certification

SAE and Cadpo have signed an exclusive agreement to offer automotive CAD certification. Cadpo provides the MCAD/PLM industry standard in software neutral eLearning, training, and engineering services. Through the partnership, Cadpo and SAE will offer the first-ever CAD training and certification program for automotive engineers and designers.

This program will provide professional credentials acknowledging automotive expertise. Cadpo will deliver eLearning and blended learning. SAE will award certification upon successful examination. The program will be available in both Unigraphics NX and CATIA V5.

Cadpo and SAE have formed an Executive Steering Committee to develop the design and engineering skill sets required for certification in line with the

automotive industry's current and future needs. The Executive Steering Team will include executives from Delphi, GM, Ford, and Chrysler. In addition, Cadpo and SAE are forming a Curriculum Oversight Committee to advise on content for those skill sets. This committee includes expert designers and engineers from Delphi, GM, Ford, and Chrysler who are very familiar with CAD tools and their application for automotive products.

The certification program will be developed in collaboration with leading automotive OEMs and suppliers over the next six months for release in September 2004.

For more information, please contact Dora Smith, Cadpo, 314.862.1649 or dsmith@cadpo.com; or Kevin Perry, SAE, 724.772.7502 or kperry@sae.org.

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SAE Foundation Banquet

"Manufacturing Leadership for the Future"

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Wednesday, May 12, 2004 • 6:30 p.m. • Ford Field • Detroit, MI

J.T. Battenberg, III

Please join Detroit's most distinguished leaders in industry as we present the 2004 Manufacturing Leadership Award to J.T. Battenberg III, Chairman, Chief Executive Officer and President of Delphi Corporation.

Under Battenberg's leadership, Delphi became an independent company in May 1999 - ranking 57th in the Fortune 500 in its first full year of independence. Since then, Battenberg has further established Delphi as a key strategic supplier, focusing the company on growing its high-tech product sales, restructuring its portfolio and diversifying its customer base for long-term profitability.

Battenberg has directed Delphi to examine new partnership opportunities and acquire technologies that will allow the company to grow market share in selected traditional automotive markets while expanding into non-automotive markets.

Proceeds from the event will benefit math and science education programs supported by the SAE Foundation.

For more information, please contact the SAE Foundation at Phone: 248-273-2480; Fax: 248-273-2494; email: ginny@sae.org

SAE Automotive Headquarters
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April 2004

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Apr 1-2	Controller Area Network (CAN) for Vehicle Applications **
Apr 5	Current Issues in Using Crash Injury Data
Apr 5	Basic Noise Control **
Apr 5-7	Motor Fuel: Technology, Performance, Testing, and Specifications
Apr 6	Noise and Vibration Measurement: Instruments and Facilities
Apr 14-15	Powertrain Selection for Fuel Economy and Acceleration Performance **
Apr 14-16	Fundamentals of Metal Fatigue Analysis **
Apr 19-20	Fundamentals of Engine Oils
Apr 19-20	Designing for Safety and Developing Accurate Safety Specifications
Apr 19-21	Liquid Atomization, Sprays, and Fuel Injection **

Continued on p. 12

PROFESSIONAL DEVELOPMENT

Continued from page 11

- Apr 19-21 Geometric Dimensioning & Tolerancing - Level II
 Apr 22-23 Adhesive Bonding Technology
 Apr 22-23 Design for Manufacturing & Assembly (DFM/DFA)
 Apr 23 Engine Cooling Design: A System Engineering Approach
 Apr 26 Fundamentals of Sensor Design for Automotive Air Bag Systems
 Apr 26-27 Static and Dynamic Sealing **
 Apr 26-27 Brakes - Design & Safety **
 Apr 28-30 Concurrent Engineering Practices Applied to the Design of Chassis Systems **
 Apr 29-30 **New!** Turbocharging Internal Combustion Engines
 This two-day seminar will cover the basic concepts of turbocharging modern-day gasoline and diesel engines. Turbocharger matching and charge cooling, an integral part of the modern day air management systems, will be discussed as well as associated controls that provide opportunities to optimize engine systems for specific applications. The limitations and future possibilities of present day systems as well as emerging technologies and their impact on engine/vehicle performance will be presented. The seminar will deal more with the turbocharger-engine interface—matching, benefits, limitations, emerging technologies—and not with detailed turbocharger aerodynamics and design.
 Apr 30 Patents - A Global Perspective

May 2004

Troy, MI, USA - SAE Automotive Headquarters

- May 3 Introduction to Occupant Sensors
 May 6-7 Automotive Advanced Driveline Systems: Theory and Design **
 May 6-7 In-Vehicle Multiplex Networking Applications
 May 10-11 The Role of the Expert Witness in Product Liability Litigation
 May 10-11 **New!** Fundamentals of Gear Design and Application **

Through informative discussions and detailed explanations, this seminar will provide a solid and fundamental understanding of gear geometry, types and arrangements, and design principles. Starting with the basic definitions of gears, conjugate motion, and the Laws of Gearing, those attending will be given the tools needed to understand the interrelation and coordinated motion operating within gear pairs and multi-gear trains. Basic gear system design process and gear measurement and inspection techniques will also be explained. In addition, the fundamentals of understanding the step-wise process of working through the iterative design process required to generate a gear pair will be reviewed, and attendees will also briefly discuss the steps and issues involved in design refinement and some manufacturing considerations. Also, an explanation of basic gear measurement techniques, how measurement equipment and test machines implement these techniques, and how to interpret the results from these basic measurements will be covered.

CAREER OPPORTUNITIES

It's easy to place an advertisement in SAE Update. Simply call with your space reservation and fax--or e-mail and save the typesetting fee!--your ad copy to **Rebecca Wiley: phone 724/772-7116, fax 724/776-2690, e-mail advertising@sae.org**. You will be contacted promptly to discuss your ad and to receive details about pricing and deadlines.

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Brazing Engineer; 40 hrs./wk. 8am-5pm M-F. \$70,580/year. Provide engineering support to brazing furnaces & radiator production cells; improve oven rates by balancing time & temperature characteristics of the brazing furnace; introduce new material & designs to production & reduce costs, such as, down gauging existing materials; update & change work instructions to reflect new procedures; provide brazing expertise to project management; utilize thermal recording tools to maintain a high quality product; obtain quotes & initiate drawings to modify tooling to accommodate new components; perform product validations to obtain parts for durability testing in line with customer requirements; update DFMEA's, product flow charts, & control plan to conform to specified quality standards; conduct aluminum brazing training courses for new engineers & production personnel. Provide metallurgical support to laboratory when required. Ed. Req. Bach. or Ed. Eq. in Materials Eng. Or related field & 1 yr. exp. as Metallurgist, Brazing or Metallurgical Eng. or comb. Work exp. must include developing materials for automotive brazing applications & providing metallurgical support. Send resumes to Indiana Department of Workforce Development, 10 N. Senate Ave., Indianapolis, IN 46204-2277 Attn: Tim Lawhorn. Incl. ref. #8213500 & social security # w/ Resume.

Volvo Cars of North America, LLC

Position: Engineer, Emissions - **Location:** Rockleigh, NJ

If qualified, please submit, via Jrotundo@volvocars.com or fax to: 201-784-4590. No calls please.

Job Summary: Prepare and analyze CA defect reports & in-use testing.

Principal Responsibilities: Prepare and analyze MA and CA warranty, in-use defect reports, Develop strategies to minimize cost effect on Volvo, Conduct in-use testing, Assess technical trends of in-use emission testing, Vice-Chair of VCNA Environmental Committee, Prepare recall progress reports, Prepare certification-status letters for individual customers considering importation.

Job Specifications: Knowledge: Knowledge of basic engineering principles and practices - this is generally acquired through a combination of education (college degree in Engineering Discipline) and at least 5 years of experience, Broad knowledge of the automotive business - including strong knowledge emission testing/defects.

Key Competencies/Abilities: Gathers and uses information logically to reach a clear understanding of situations and problems, Investigates and identifies root cause(s) of issues and problems; works with peers to head off potential conflict of goals, duplication of effort or waste of resources; takes the initiative in raising issues and completing work; follows up to make sure problems/issues are resolved and assignments, completed; takes a stand on limited data when appropriate; keeps people informed; keeps channels of communication open; recognizes the need for teamwork and intercultural cross-organization collaboration; and ability to utilize a PC to communicate, analyze data, track trends and retrieve relevant information.

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Southwest Research Institute is seeking motivated professionals to lead research programs on-site at client's facility; conduct work in low emissions engine concepts; provide direction to test cell engineers and technicians; lead or serve as a key resource in the development of in-cylinder emissions control technologies and exhaust treatment devices; use knowledge of control system elements for in-cylinder and exhaust treatment emissions control; lead experimental and analytical aspects of engine testing including data analysis, interpretation of results, written and verbal reports and presentations; communicate with client to convey technical progress and schedule; prepare technical reports; conduct promotional presentations and proposal preparation to generate new business opportunities. Requires a BS in Mechanical or Automotive Engineering or equivalent and 10 years of industry experience in combustion development and emissions reduction. Must have knowledge of combustion development (Homogeneous Charge Compression Ignition); able to interact effectively with clients and co-workers.

NOTE: Work assignment is in Ann Arbor, Michigan.

RESEARCH ENGINEER

To provide technical leadership in research and product development programs related to light-duty and medium-duty diesel engines; develop low emissions diesel engine technologies targeting future Tier II, Euro V, 2010 emissions regulations; lead the development of in-cylinder emissions control technologies and exhaust treatment devices with application of control system elements including integration and control of diesel particulate filters and NOx control devices such as lean NOx traps (LNT); lead experimental and analytical aspects of test stand and in-vehicle testing; analyze test data and interpret results; write reports and present technical progress to clients; manage close interaction with clients; develop promotional presentations and proposals to generate new business opportunities. Requires a BS in Mechanical or Automotive Engineering or equivalent (advanced degree a plus) and 5 years of industry experience in high-speed direct injection or medium-duty diesel engines.

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