The Auto Sun is Rising

The Detroit Chapter of ASM International will be hosting Dr. David Cole, Chairman Emeritus for the Center for Automotive Research (CAR) and Chairman of Auto Harvest on Monday, October 15, 2012 at Vladimir’s in Farmington Hills (28125 Grand River Ave.). Dr. Cole is a nationally recognized authority on the auto industry.

The auto industry has gone through an amazing transformation in the past few years. Through capacity reduction, restructured labor contracts, financial restructuring, staff reductions, new technological tools, global scale and more, the industry’s break-even has been reduced from about 14-15 million units to between 10 and 11 million in the US. The domestic manufacturers, in particular, have become far more competitive as they have moved from a cost disadvantage to an advantage over many of their international competitors. This is evident with their surprising profitability even though we are still at a depression level of sales.

The industry is an extremely important part of our economy, particularly in the Midwest, with a job multiplier of 10 for the auto manufacturers and nearly 6 for their suppliers. There are a number of concerns however: there is still excess capacity at the global level, with re-expansion of the domestic market there is growing shortage of appropriately educated future employees which is exacerbated with accelerating retirement of “Boomers”, tough new regulations, economic uncertainty across many of the world’s economies and more.

We are at the edge of a revolution in both product and process technologies. New production facilities are both lean and agile with advanced software control everywhere. In the product area the powertrain is moving to at least partial electrification but advanced internal combustion engines assure a lively competition for some time to come. The connected vehicle is becoming a reality which will yield enormous benefits, particularly in safety.

All in all, the modern auto industry is on the move and the process of change is accelerating. It is a vitally important industry here in Michigan and across the world. Dr. Cole will address these issues and if time permits, hold a Q & A session following his talk.

David E. Cole, Ph.D. is Chairman Emeritus of the Center  

continued on page 4

Meeting:  
Monday, October 15, 2012  
Venue: Vladimir’s  
28125 Grand River Ave., Farmington Hills  
For reservations contact the Chapter Office at: (586) 573-0700 or email to AsmDetroitChapter@gmail.com before Friday, October 12th.

5:45 p.m. Social Hour  •  6:30 p.m. Dinner  •  7:00 p.m. Speaker  
$25 with Reservation; $30 Non-Members/No Reservation; $20 Retirees/Unemployed; $5 Students
Chairman’s Message

Welcome to the 2012-2013 ASM-Detroit Chapter Year; it is both a pleasure and honor to be your Chairperson this year. I will continue to maintain the level of excellence my predecessors have and give a “hats off” to outgoing Chair Jason Coryell, for a job well done!

During our summer recess, many activities continued as we have done in the past. Our Teachers Camp in June was very successful thanks to the work of camp organizer Dr. Kathy Hayrynen and Peg Jones and many others serving as laboratory assistants, drivers and contributors. Special thanks to Ron Radzilowski for arranging lunch at the Camp and later a tour of the Severstal North America’s integrated steel mill in Dearborn. Many of those who participated in the tour commented how clean the facility is in contrast to typical plants.

August was our annual ASM/AFS Golf Outing at Fellow Creak Golf Club in Canton Michigan. Special thanks goes to those 68 golfers who attended despite the cold and drizzle and for the extra efforts of Michael Blaziejewski and the golf committee for setting up this event. Michael reports that there was an abundance of gifts with some golfers receiving more than one. The day went smoothly and all had a great time. ASM-Detroit will be splitting the proceeds of almost $8,000 with AFS, which is more than last year. The funds raised directly fund our scholarships. A complete listing of sponsors and donors who made this event possible are in this edition of the Micro Examiner.

Once again, an exciting year is planned as we finish up our selection of guest speakers. I look forward to meeting each one of you at our opening meeting October 15th when we welcome Dr. David Cole, Chairman of Auto Harvest and Chairman Emeritus for the Center for Automotive Research where he will share his presentation “The Auto Sun is Rising.” University night is set for November 12th with Dr. Anish Tuteja from the University of Michigan. We will welcome our ASM International President Dr. Maurer February 11th and, not to speed the year any faster that it already seems to travel, March is our joint ASM/ASF meeting with plans for April and May nearly complete.

Regarding University Night, please encourage your students to come make a poster presentation on any one of the following:
1. Their graduate or undergraduate research in materials science.
2. A materials topic of interest or proposed research topic in materials science.
3. A presentation or discussion of why a career in materials science has captured their interest.

First, second and third place awards will be given that evening.

I look forward to serving as your Chapter Chairperson during this year and will be available to any comments or suggestions you may have to better serve the chapter membership, or if you any speaker topics or speaker suggestions. You may contact me anytime at asmddetroitchair@gmail.com or through our Chapter Administrator, Caryn Ruzich at asmddetroitchair@gmail.com. Hope to see you Monday, October 15th at Vladimir’s!
Steel – Answering The Challenge Of Cafe

The steel industry is well known for answering the challenges of its automotive customers. When corrosion warranty became an issue in the 1980s, the steel industry responded with two-sided exposed surface quality galvanized steel. When improved crashworthiness was required from 1990 through 2012, the steel industry was there with high energy absorbing AHSS grades like dual phase and TRIP to improved frontal crash energy management and with ultra-high-strength AHSS steels to prevent intrusion into the passenger compartment from side impact and rollover load cases.

Now that the automotive industry is looking to nearly double the fuel economy of light vehicles by 2025 as required by the new CAFE (Corporate Average Fuel Economy) Law, the steel industry has again moved the needle towards new steel grades with higher strength and more formability. The new AHSS products have strengths in many cases above one gigapascal in strength, ranging from three to five times stronger than mild steels.

Research on new metallurgical approaches is driving to a third generation of these steels with greater formability that can enable many more parts to be made lighter with AHSS. Plus, new design optimization software and steel manufacturing processes like tailor rolling or tailor welding of coils is putting strength exactly where it needs to be in cars and trucks without redundant mass. So, while everyone appears to be searching to use new materials to solve the carmakers lightweighting challenges, don’t forget that steel has answered all challenges in the past, and will answer the CAFE challenge too, and do it cost effectively as well.

The Steel Market Development Institute (SMDI), a business unit of the American Iron and Steel Institute, grows and maintains the use of steel through strategies that promote cost-effective solutions in the automotive, construction and container markets, as well as for new growth opportunities in emerging steel markets. For more news or information, visit www.autosteel.org.
The Auto Sun is Rising (continued from page 1)

for Automotive Research (CAR) in Ann Arbor, MI, and Chairman of Auto Harvest. He was formerly Director of the Office for the Study of Automotive Transportation (OSAT) at U of M Transportation Research Institute and an engineering professor at U of M. He has worked extensively on internal combustion engines, vehicle design, and overall automotive industry trends.

Dr. Cole’s recent research has focused on strategic issues related to the restructuring of the North American industry and trends in globalization, technology, market factors, and human resource requirements. He is chairman of Auto Harvest, a new organization being developed to facilitate the flow of intellectual property in and out of the auto industry. He was formerly a member of the Energy Engineering Board of the National Research Council, the U.S.-Canada Free Trade Pact Select Panel and the Michigan Strategic Economic Investment and Commercialization Board. He is also director of six automotive related companies and closely involved with five Ann Arbor-based start-ups. Dr. Cole was formerly a member of the Executive Committee of the Michigan Economic Development Corporation (MEDC) and the Michigan Renewable Fuels Commission. He was named a co-chair of Detroit Renaissance’s “Road to Renaissance” Project in the fall of 2006. At U of M he is a member of the Energy Research Council, Mechanical Engineering External Advisory Board and the Biological Station Advisory Committee. He is also a member of the Denso Foundation Board. Dr. Cole was formerly a director of the Automotive Hall of Fame and the Original Equipment Suppliers Association and a member of the Board of Trustees of Hope College.

He is active in SAE (elected a Fellow and served two terms on SAE Board of Directors), ESD (elected a Fellow in 1990), and Society of Manufacturing Engineers (elected a Fellow in 2009). In 1993, he received the National Automobile Dealers Association Foundation’s International Freedom of Mobility Award. In 1994, Design News selected Dr. Cole as one of eight engineering leaders, and he was also selected to receive Sweden’s Order of the Polar Star. He is currently a member of the editorial advisory board of Popular Mechanics. Dr. Cole was named as the Marketing Educator of the Year by the Society of Marketing Executives (1998). Additionally, he received the 1998 Rene Dubos Environmental Award for his contributions to the industrial ecology of the automobile and the Chevalier of the National Order of Merit from France (1999). He received the 2008 Mechanical Engineering Distinguished Alumni Award from U of M.

Dr. Cole received his B.S.M.E. and Mathematics, M.S.M.E. and Ph.D. from the University of Michigan and recently received an honorary doctorate from Cleary University.

The event begins at 5:45 p.m. at Vladimir’s located at 28125 Grand River Ave., Farmington Hills with the social hour with an open bar. Dinner follows at 6:30 p.m. and the program begins at 7:00 p.m. Dinner tickets for this event are $25 for ASM members and $30 for non-member. For reservations, please contact Caryn Ruzich, ASM-Detroit Chapter administrator at (586)773-0700 or via email to asmddetroit chapter@gmail.com no later than Friday, October 12th. For more information on ASM-Detroit activities visit our website at www.asminternational.org/portal/site/detroit.
Are You A Sustaining Member?

Sustaining Members play a critical role in the success of our chapter. They provide both a continued core presence at Chapter activities, and an increased level of financial support for our chapter.

In return, Sustaining Members enjoy the goodwill and camaraderie, and the satisfaction of helping to educate and promote young material professionals. Sustaining Members also enjoy an array of benefits available only to them.

- Listing on ASM-Detroit’s website and a link to your company website.
- A place in our monthly PowerPoint presentation at our technical meetings highlighting the Detroit Chapter’s Sustaining Member companies.
- Discounted advertising rates in the Micro Examiner and our Yearbook & Buyer’s Guide.
- A company profile in our monthly newsletter, the Micro Examiner, advertising your company’s products and/or services.
- Special recognition in our Yearbook & Buyer’s Guide.
- Recognition at our Sustaining Members Night, including the honor of funding the Sustaining Members Meritorious Scholarship.

Becoming a Sustaining Member can only increase your visibility in the materials community. Help your chapter support our student outreach programs and become a Sustaining Member company.

To become a Sustaining Member, contact ASM International at (800)336-5152 extension 0 for member services.

Sustaining Membership Has Its Privileges, Call Today!

---

**ASM-Detroit Chapter 2010-2012 Yearbook & Buyer’s Guide Advertisers Needed**

ASM-Detroit will be publishing the 2010-2012 Yearbook & Buyer’s Guide before the end of the year. Solicitation letters were sent in August, but there’s still time to get your ad in. Business cards ads start at $175 for Sustaining Member companies and full page ads are $425!

New this year, we will be publishing this edition to the web. A limited number of hard copies will still be available, however, with the book online you will have access to literally thousands of potential customers. If you haven’t advertised before, consider advertising this year. For more information on rates, contact Caryn at the chapter office at (586)573-0700 or via email at asmdetroitchapter@gmail.com. Help support ASM-Detroit and advertise!
ASM/AFS Joint Golf Outing A Huge Success!

The 2012 Joint ASM / AFS golf outing held at Fellows Creek Golf Course was a great success this summer. Sixty-eight golfers spent the day hitting their best shots and winning some fantastic prizes.

A “BIG” thanks goes out to the golf committee which included Eugene Kuo, Fred Duerk, Greg Woycik, Jim Panasiewicz, Paul Jones, Caryn Ruzich, and ASM Entertainment Chairman, Mike Blazejewski, for organizing the event. Special thanks to Caryn’s husband Frank for soliciting donations. ASM incoming Chairman Phil Huber, Kae Trojanowski, and Melodie Coryell also deserve a thank you for helping out by selling raffles tickets and taking pictures during the day.

The banquet held after golf consisted of a delicious steak dinner followed by the awards ceremony. Also, each golfer received a free 18 holes of golf to Fellows Creek. Hole sponsors, the beverage cart sponsor, and closest to the pin sponsor were all recognized for the generous donations. Below is a complete list of sponsors for the golf outing.

Many other companies brought additional prizes which were raffled off and made some happy participants multiple winners. A final thank you needs to go out to these companies for their contributions. The funds raised from the outing will be used by both ASM and AFS to better serve their respective programs and community activities including student scholarships. Hope to see everyone again next year!

**Special Thanks To All Our Sponsors**

**BEVERAGE SPONSOR**
RTI Laboratories

**HOLE SPONSORS**
Abtex Industries
AFC-Holcroft
ASK Chemicals
ATD Engineering & Machine
Element Materials Technologies
Epic Machine
Ervin Industries
HA International
Heatbath/Park Metallurgical
Kolene Corporation
MT Systems
National Element
Nemak
Rolled Alloys
The Schaeffer Group Inc.
Winona Pattern
Wolverine Bronze

**VEGAS HOLE SPONSOR**
CMI Schneible

**DONORS**
Athens Liquor Store
Carl’s Golf Land
End Zones
Heatbath/Park Metallurgical
LaFountaine Cadillac
Leco Corporation – Bob Marzinski
Mexican Fiesta Michigan bar & Grill Garage
Orleans Billard Café
Pyrotex
Upton Industries

Lowest Score Foursome, Greg Woycik, Peter Emling, Dave Moore and Fred Duerk
ASM-Detroit Chapter Calendar of Events

October 15, 2012
Dr. David Cole
Chair, Auto Harvest
“The Auto Sun Is Rising”
Vladimir’s

November 12, 2012
University Night With Poster Session
Dr. Anish Tuteja
U of M, Dept. Of Materials Science
University Of Michigan
North Campus
ASM-Detroit Chapter 2012-2013
Officers & Executive Committee

Phil Huber .........................Chair
Susan Hartfield-Wünsch .................Vice Chair
Manish Mehta, Ph.D. .......................Secretary
Thomas Mackie .......................Treasurer

James Boileau, Ph.D. ..................Attendance/Publicity
   Eric McCarty ....................Education/MEI/Round Table
   Thomas Kozina ..................Awards & Recognition & National Affairs
   Jason Coryell ..................Finance/Council of Fellows
   Roger Pryor ..................Membership/Sustaining Members
   J.P. Singh ..................Papers & Programs
   Meghan Oaks ..................Co-Chair, Young Members/Student Affairs
   Kae Trojanowski ...............Co-Chair, Young Members/Student Affairs
   Michael Blazejewski ............Entertainment

ASM-Detroit Chapter Office
Caryn Ruzich, Administrator
asmdetroitchapter@gmail.com
www.asminternational.org/portal/site/detroit
(586)573-0700