



Wish you a Happy Baisakhi !

Issue 5, April 2011

Sampark

SAEINDIA

NORTHERN SECTION

Celebrating a decade of Knowledge Enhancement

The Engineering Society
For Advancing Mobility
Land Sea Air and Space

From Vice Chairman's desk



It gives me great pleasure in extending my warm greetings to all of you.

SAEINDIA has become more relevant with the Indian automobile market which is growing at an astonishing pace, with a growth rate which is second only to China. Till recent past, India was seen as a low cost automobile market but is now embracing technology as its ticket to the future. Vehicle Technology is evolving around concepts as light weight, better fuel efficiency, better safety and less pollution. In this scenario, it is of utmost importance for us to connect with the technological advancements in mobility, in order to keep pace. SAE is such a platform where people can connect with new technologies, advancements and developments in the automobile market.

Knowledge sharing has been taken up as a principal focus area by SAEINDIA, and various seminars, lectures on latest technology and related conferences are being organized with ever growing acceleration. In Northern India, the cause of knowledge sharing is being actively taken ahead by SAENIS. I find that the various events organized by SAENIS are immensely useful to the members, and the various initiatives being taken are helping in taking the cause of SAE to more and more people. *Sampark* is yet another initiative in this direction, and I am sure that the members of SAENIS will contribute more to make it better and better. I wish all the success to *Sampark*.

Mr. P Agrawal
Senior Vice Chairman,
SAENIS



Impact of Materials on Weight & Cost Reduction Opportunity in Future Vehicles

With increasing importance being given to fuel efficiency, appropriate material selection for weight reduction is playing an important role at design stage.

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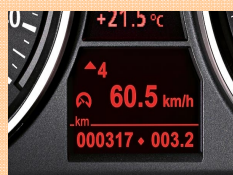


Seminar on Welding Technology

The seminar gave an insight into the latest development areas in the Resistance Technology and robotic application for Automobile Manufacturing.

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TECH BUZZ



Gear Shift Indicator

A smart system that senses the way the vehicle is being driven, taking into account the individual driving style and identifying the most suitable gear change point.

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Formula SAE arrives in India.....



Maruti Suzuki and SAEINDIA signed an agreement on 14th March '11 to support SUPRA SAEINDIA 2011 competition. The MoU was signed in the presence of Dr. Richard Kleine, SAE International President, Dr. David Schutt, CEO - SAE International, Mr Shashank Srivastava, Chief General Manager (Marketing) Maruti Suzuki

Dr. V. Sumantran , Executive Vice Chairman, Hinduja Automotive Ltd and Chairman of SUPRA SAEINDIA Steering Committee. SUPRA SAEINDIA promotes young automobile engineers and facilitates participants to conceive, design and fabricate Formula-1 style Sports cars. The first ever SUPRA SAEINDIA event is all set to take place on 1st-3rd July 2011. There will be a total of 44 teams that will participate in the SUPRA SAEINDIA 2011.

Read more at www.suprasaeindia.org

Upcoming events...

- SAE World Congress 2011, 12-14th April 2011, Detroit, USA
- SAE AWIM Jet Toy Olympics, 13th April 2011, Detroit, USA
- Seminar on "Low Cost Automation", 15th April 2011, Gurgaon

Impact of Materials on Weight and Cost Reduction Opportunity in Future Vehicles, 11th March 2011, Gurgaon

SAEINDIA (Northern Section) organized a seminar titled “Impact of Materials on Weight & Cost Reduction Opportunities in Future Vehicles”, which was held on 11th March’11 at Maruti Suzuki India Limited, Gurgaon. The presenter for the event was Dr. Prabhat K Rastogi from Arcelor Mittal .

The seminar highlighted on the importance of improved fuel-efficiency, reduced GHG emissions and improved safety as key parameters for deciding the success of Auto OEMs in the future. In such a scenario, selection and application of materials would be a key enabler. The focus of the seminar was the use of Advanced High Strength Steels (AHSS) in automotive applications and its edge over conventional products in terms of enhanced crash resistance, better durability, as well as weight

and cost reduction. Besides discussing about the manufacturing challenges associated with such products, the presenter also touched upon the Life Cycle Assessment of Steel vs. Aluminum. A general overview on Alternate materials was also given in the seminar. The seminar saw a participation of 80 enthusiasts mainly from Maruti Suzuki, , Subros, SKH Metals, Asahi India Safety Glass, Lumax and student members from Maharaja Agrasen Institute of Technology and U.I.E.T (Punjab University).

“Advanced High Strength steel are advantageous over conventional products”



Welding Technology, 26th March 2011, Gurgaon

SAEINDIA (Northern Section) in association with M/s Denyo Kogyo and M/s Difacto Robotics & Automation organized a seminar titled “Welding Technology”, which was held on 26th March’11 at Japanese Hostel, Gurgaon.

This seminar covered different aspects of Resistance Welding Technology like Welding Timer control, tip dressing, nut welding solutions and spot welding gun. The seminar also gave an insight into robotic applications for automobile manufacturing covering spot welding, arc welding, seam welding and roller hemming. The presentation provided a broad over-view of the different applications and the factors to be considered for automation of these operations like selection of robot / peripheral equipment (weld guns, fixturing,

conveyors) different layout possibilities, material feeding to automation systems, poka-yoke ideas, safety issues, etc.



The seminar saw participation of over a 75 people from the Auto OEMs & Suppliers including companies like Maruti Suzuki, VeeGee Industries, SKH Metals, JBML and Caparo.



“Robotic application for automobile manufacturing was covered and the factors to be considered for automation”

TECH BUZZ

Gear Shift Indicator

Gear Shift indicator alerts drivers when to change gear for best fuel economy. The gear-shift indicator system senses the way the vehicle is being driven, taking account of road gradient, vehicle load and individual driving style and identifies the most suitable gear change point. The system continuously monitors data from the vehicle including engine speed, road speed, gear selected and throttles position to calculate optimum gear changes and signals to drivers when to change gear at the optimum moment.

The gear shift indicator also adapts its recommendations to suit your current driving situation. When you're accelerating strongly, it allows the engine to reach a higher engine speed before recommending a gearshift.

By helping driver to change gears at the right moment, the gear shift indicator leads to a significant reduction in fuel consumption and ensures complete and smooth power development.

Well-timed gearshifts mean lower fuel consumption: the gear shift



indicator shows the ideal timing for each gear change on

your vehicle's info Display. By shifting gear at the recommended moment, you ensure your fuel is used more efficiently and emissions are minimized. Moving more swiftly through the gears also reduces fuel consumption by avoiding unnecessarily high engine speed.

The system not only helps drivers cut fuel costs, but also enables them to reduce CO2 emissions and to decrease wear on engine and transmission components.

*Reference: <http://www.team-bhp.com/forum/technical-stuff/52388-techinfo-gear-shift-indicator.html>

<http://www.automobilesreview.com/auto-news/ford-gear-shift-indicator-helps-fuel-economy/8003/>

“The system continuously monitors data from vehicle to calculate optimum gear change”

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Palam Vihar, Gurgaon - 122017, (HR)
Tel: 0124-4370163

e-mail : sae.nis@gmail.com

Mr. A.D. Sindwani :
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Newsletter*Total SAENIS Members as on 31st March'11: 657

New SAENIS Members added in FY2010-11: 397

Industry Members: 541 | Academic Members: 116

SAENIS wishes all the members a Happy Baisakhi !