

# sidetrack

the newsletter of the International Federation of Automotive Engineering Societies

# **EAEC** Congress





**IMechEAD** Chairman Gives climate change



Calling al students Important bursary information





"The credit crunch affects not just the way manufacturers and suppliers do business, but the organisations, societies and networks of the international automotive engineering community."

**Christoph Huss** President, FISITA

As the financial crisis continues to cause chaos throughout the world's automotive industry, we look past the headlines and ask: what are the implications of the downturn for FISITA member societies?

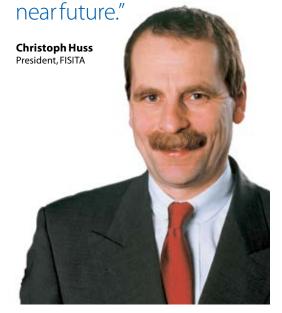
2009 is set to be one of the hardest years in history for the automotive sector. This is a worry for FISITA's member societies, most of whom rely heavily upon industry funding for membership subscriptions, conferences, events, student programmes and other core activities.

So, how are we doing? We asked four FISITA societies how the downturn is affecting their business and what actions they are taking to get through the crisis.



"In times such as these it becomes even more crucial to use our professional networks and relationships to good effect; to communicate and share any ideas or advice that could be of help to others.

This recession will not last forever and there is no doubt that technology is key to the recovery and future prosperity of the automotive business.
This means lots of exciting opportunities for the national engineering societies and FISITA in the







#### Member society

VDI - Gesellschaft Fahrzeug-und Verkehrstechnik (VDI-FVT), Germany

Number of members 15.840

Secretary

Dr.-Ing. Ludwig Vollrath

# How has the financial crisis affected the automotive engineering community in your country?

There are a number of different viewpoints on this. The first is obviously the reduction in sales, which is happening all over the world. This has obviously affected Germany – which has a larger share of the exports. Secondly, it has hit Tier 1 and Tier 2 suppliers. The industry now has very tight margins in which to operate, and this goes down to the suppliers, who are much smaller. These small suppliers are very much under pressure right now – they cannot get parts sold. The third area is that investment in machines has stopped, due to overcapacities.

#### Which areas have suffered the most?

As before, suppliers are very heavily under pressure at the moment. However, dealers will also be affected later on. The larger dealerships will become larger, but there will be fewer competitors. Smaller suppliers are likely to dwindle as a result of this.

# What is your society doing to get through the crisis? Have you introduced any new initiatives or special measures?

VDI is heavily focussed on training through various conferences and seminars. As a result of the current crisis, we are sharpening up our training, and getting the best possible speakers in order to ensure people are informed and equipped to deal with the situation.

Secondly, we also have a lot going on in terms of CO<sub>2</sub> reduction, electric vehicles, infrastructure and ITS – we cannot afford to just step back from these important things because of the financial crisis. A few months ago, nobody had time to work on these things, but now, momentarily, we have the time to do so. We should use the time we have to build up our strategy – and use the current crisis to put our heads together, and make a plan for the future. We are working on new technologies and conferences on how to get electricity into cars. We need to give people support in developing these technologies.





### Member society

. . . .

Number of members

President

Rafael Boronat Martínez

#### How has the financial crisis affected the automotive engineering community in your country?

The influence has been dramatic. There is a very strong market recession and customers are very reluctant to buy new cars. At the moment, we cannot see the light at the end of the tunnel.

#### Which areas have suffered the most?

Light Commercial Vehicles (light trucks and vans). These are the most sensitive products when this situation occurs. Their customers, small and medium businesses, are directly affected by the crisis and the consequences are immediate.

# What is your society doing to get through the crisis? Have you introduced any new initiatives or special measures?

STA is promoting innovation throughout the industry; manufacturing is not the most relevant activity at this time because of lack of sales, therefore some other development factors have to be pushed over to overcome the crisis.







Member society
JSAE, Japan

Number of members

Executive Director

# How has the financial crisis affected the automotive engineering community in your country?

We estimate that the incomes of JSAE – contributions and sponsorships from companies – for FY2009 will scale down by 25% compared to the closing account of FY2008.

#### Which areas have suffered the most?

Our Automotive Exhibition and Congress.

What is your society doing to get through the crisis? Have you introduced any new initiatives or special measures?

The good news is that most of the companies still support our events which enlighten students, such as Student Formula SAE Competition of Japan (10% decrease). We will continue developing our events for kids and young engineers.

Now is the time to sow the seeds of new ideas, to enjoy the fruits of efforts we will be making during these few years.





Member society
SAE International, USA

Number of members

62,082

**Executive VP and Chief Operating Officer**David L. Schutt. PhD

# How has the financial crisis affected the automotive engineering community in your country?

The automotive industry is global. The reality is that it doesn't matter where an economic slowdown occurs; it affects the entire industry. The mobility industry today is intricately linked along the entire value chain, everything from product design to raw materials to manufacturing to sales. So it is natural that a slowdown also will affect the engineering portion of the industry.

## What is your society doing to get through the crisis?

The leadership of SAE International has had the long-term foresight to prepare the organization to weather a sustained downturn in the economy. SAE International had a strong balance sheet heading into the global recession and, while the current economic environment has had a negative impact, the organization remains strong and healthy.

Operationally, SAE International is proceeding in a prudent manner by moderating expenses and focusing its resources on core activities that provide the greatest member-and customer-value.

In fact, it is during these times that our members need a professional organization more than ever. We are placing greatest priority on member-valued programs, products, and services, and are continually developing new ways to help our members.

## News in brief

### Slovenia

AMETS-AG will organise the *Innovative*Automotive Technology conference – IAT'09 – on
23rd and 24th April 2009, in collaboration with
the Faculty of Mechanical Engineering at the
University of Ljubljana and the Automotive
Cluster of Slovenia. The conference will be held in
Nova Gorica, Slovenia.

For more information, please contact Prof. Dr. Jernej Klemenc iat09@fs.uni-lj.si

or visit www.fs.uni-lj.si/lavek

### Serbia

JUMV Serbia's 22nd International Automotive Conference will take place in April 2009 in Belgrade, entitled Automotive Engineering for Improved Safety – Science and Motor Vehicles.

#### France

SIA is to hold its third *Automotive Power Electronics* (APE) Conference on 25th and 26th March, at Cœur Défense in Paris. The event will be chaired by Dominique Lhotellier of Renault, and will revolve around the themes of Design Tools, Robust Design, Mechatronic Integration and Semiconductors.

For more information, please visit www.sia.fr/evenements.htm

#### Romania

The International Conference *ESFA 2009* (Fuel Economy, Safety and Reliability of Motor Vehicles) will take place in Romania in November this year, organised by SIAR. The main conference topics will include Fuel Economy and the Environment, New Materials and Technologies and Advanced Powertrains.

The deadline for abstracts is June 1st.

# **TORAY**

## **Toray Industries Inc. joins FISITA Honorary Committee**



Sadayuki Sakakibara, President and COO Toray Industries, Inc.

The latest company to become a member of the FISITA Honorary Committee is Toray Industries, Inc., a global chemical group based in Japan, and the world's largest producer of carbon fibre. Sadayuki Sakakibara, the FISITA Honorary Committee representative, has been President and COO of the company since 2002, and CEO since 2004.

Toray's business segments cover a wide range of different fields; Fibres and Textiles, Plastic Resins and Chemicals, Films, IT-related Products, Carbon Fibre Composite Materials, Environment and Engineering, and Life Sciences.

Toray's Automotive and Aircraft Centre was established in Nagoya with the aim to foster the technological development of automotive applications and materials, carbon fibre composite materials and plastic resins and compounds.

In late 2008, Toray bought a stake in Advanced Composite Engineering GmbH (ACE) in Immenstaad, Germany. By embarking on local development and production of CFRP in Europe, Toray aims to achieve significant expansion of its automobile-related CFRP business – which is expected to grow considerably in the future.

## Change By Design 2009 – SAE Australasia Australian Automotive Week



SAE Australasia hosted its 3rd annual *Change By Design* Conference this March – a stimulating event held during Australian Automotive Week in Victoria, with the title *Engineering The Future* – *Securing Success Growth through Innovation and Diversification*.

Australian Automotive Week was organised in conjunction with the Melbourne International Motor Show, and featured Career Seminars that focused on Victorian based manufacturers of cars and components. The aim was to provide local students with an insight into the industry and accordingly, the programme of seminars was led by young achievers who have gained 'real world experiences' through their work roles.

Change By Design was a key event of Australian Automotive Week, and attracted all of the major industry names. Speakers included the Minister for Innovation Industry Science and Research, the Honourable Kim Carr, Minister John Lendes from the Victorian Government, and further contributions from senior figures at SAE-A, Vision Group Australia and Deloitte Touche Tohmatsu.

Commuting without Polluting and Growth driven by Innovative Designs were just two of the fascinating topics of discussions that took place throughout the day, at The Atlantic Group Peninsula Room on the Harbour Esplanade, Victoria.

# STA/Barcelona International Motor Show Awards – deadline for submissions



The organisers of the Barcelona International Motor Show and FISITA member society, STA have announced the 7th Edition of the Barcelona International Motor Show Awards for the best technological developments in the automotive industry.

The awards recognise the innovative work carried out by companies and institutions in the industry, and aim to increase awareness of the crucial importance of research and development in automotive technology.

Conditions of entry:

- Projects must focus on the creation of new products and/or industrial processes carried out between March 1st 2007 and March 1st 2009
- Projects can be from any stage of the production cycle development

Awards categories:

- Complete vehicle
- Systems and components
- Technologies, processes and materials

The deadlines for submissions is 31st March 2009.

Please send submissions to: awards2009@stauto.org

# **EAEC Congress Europe in the Second Century of Auto-Mobility**



The 12th EAEC European Automotive Congress will be held from June 29th to July 1st 2009 in Bratislava, Slovakia, organised by SAITS, the Slovak Society of Automotive Engineers.

The EAEC Congress 2009 will focus specifically on the contribution of automotive

production in emerging European countries. The programme focuses on the following topics:

- Powertrain Efficiency
- Vehicle for the Next Decade
- Production and Transportation Systems.

Running adjacent to the EAEC for the first time at the Congress venue will be ASCEE 2009 – the Automotive Suppliers Central European Exhibition – from 30th June to 2nd July. This will ensure national, international and global automotive companies from CE countries can present themselves to a top level European forum.

More information www.eaec2009.com

# 5 minutes with David Ryan



Name: David Ryan

**Age:** 60

Role: Executive Director, SAE Australasia

Location: Victoria, Australia

#### When did you first become interested in automotive engineering?

I can't actually ever remember not being interested in the automotive industry.
I joined SAE-A after a 34 year career with the Ford Motor Company of Australia which gave me the opportunity to work in many very challenging and exciting areas within the auto industry.

#### What ambitions do you have for SAE Australasia?

My ambitions with respect to SAE Australia are to ensure that we offer value for membership to all segments of our membership base. In this regard I am absolutely passionate about trying to support our members with services which are relevant, timely and definitely offer a reason to maintain membership.

#### What is the most important challenge faced by the society?

The most important challenge confronting the Society at the moment is the stress being felt by many of our members as a result of the current global financial crisis and its flow on effect within the automotive industry.

Australia appears to be no different to most countries in that we are seeing many of our members having career change decisions being imposed upon them as a result of the restructuring currently occurring within the industry. Our challenge is to try and maintain our membership base in these challenging times and in doing so ensure that we offer as much support as possible to all members.

#### What do you like about working in Australia?

This is a very strange question to ask an Australian because there is no better place in this world to live and raise a family! My family and I have been very fortunate to have travelled extensively throughout the years through many countries in Europe and have even spent some time living in the US – but I guess there is nothing surprising to hear that there is no place like home.

#### What do you do when you are not working at SAE Australasia?

I am very fortunate in that my wife and I share most of the same interests which revolve around travel and generally trying to lead a healthy and happy life.

After travel I would have to suggest that my free time is generally taken up with sporting activities such as swimming, bike riding and walking. With respect to the swimming I'm afraid that I am a bit of a fish in that I try to swim 1500 metres at least 4 times a week early in the mornings before venturing into the traffic to the office.

#### If you could drive any car in the world, what would it be?

I have pretty modest / conservative taste when it comes to cars as I tend to be most interested in comfort, functionality, after sales service and resale value. I currently drive a Lexus IS250 which quite honestly will probably get replaced with another Lexus when it becomes time to consider a change.

# FISITA Student Travel Bursary Programme













#### Clockwise from top left:

Timmy Kristoffersson, Marek Grabski, Nakul Singh Shekhawat, William Cy Denney, Adrian Feurdean and Andreas Heer. Did you know that FISITA offers student members of its societies the opportunity to apply for a travel bursary of up to €2000 to help with the costs of organised work placements in automotive companies and research institutions overseas?

In today's global automotive industry, experience of working as an engineer in another country is extremely valuable. When it comes to applying scientific knowledge, there is no substitute for experience: real vehicles, real people and real problems to solve.

Since the FISITA Student Travel Bursary Programme was launched in 2000, FISITA has supported student members from SAE International to travel to China to work for Shanghai Huizhong Automotive; SVEA

students to work at Hella in Mexico; OEVK students to CD Adapco in New York; SIA students to work at Ford in the UK; SAE India students to CIDAUT in Spain, and many more.

From 2009, applications to the Bursary Programme will be considered twice a year, with deadlines as follows:

- 31 March: for those attending a summer placement
- 31 October: for those applicants attending a winter or spring placement the following year.

In 2008, FISITA awarded 17 bursaries to student members. Here we profile two of the lucky recipients and hear about their internship experiences in their own words.

## **FISITA Student Travel Bursary Programme**



## **Ontinental**®

Name: Caio Dimov

Member Society: AEA, Brazil

Placement: Continental Tire,

Duration: 01.07.08-15.12.08

My internship in Detroit, USA was quite an experience. I worked for Continental AG in the tyre division for NAFTA.

My placement was in the Product and Technology Portfolio department and my assignment was to understand the competitors' portfolio and propose new product strategies for the company.

This project was really useful as I was able to apply knowledge to real scenarios that I previously had only learned of in books and was given an opportunity to learn new skills in project management, strategic planning and marketing intelligence.

The other aspect of the internship that I found amazing was the cultural experience of working with people from lots of different countries. I was a Brazilian student working with German, American, Iranian, Mexican, and French engineers.

"The other aspect of the internship that I found amazing was the cultural experience of working with people from lots of different countries."

#### Caio Dimov

FISITA Student Bursary winner





Name: Rasmus Olson

Member Society: SVEA, Sweden

Placement: Renault Trucks/ Volvo Powertrain, France

Duration: 15.07.08-19.12.08

My internship was in the Base Engine department at Volvo Powertrain in France and covered three different projects where two of the projects were in the area of valve train development and the third project a benchmark of compression brakes. The work involved a lot of engine research with many brainstorm meetings and finally a few proposed actions from my side which I then had the opportunity to trial in engine tests.

Thanks to this internship, I got a very good insight into engine product development and gathered a lot of valuable experience in being responsible for a development project. During my time in Lyon, I was happy to be able to apply the analytical skills learnt from my courses which are aimed towards product development in mechanics with additional business management courses. Having successfully completed this internship I feel more confident in facing future challenging projects in the area of product development and am certain that this will assist me in my future career.

## Student and Young Engineers micro site: project group volunteers wanted!

FISITA is launching a new web site to support students with their studies and careers in automotive engineering.

To help us design and develop it, we're putting together a project group of young engineers from Europe, Asia and America to advise us. The group will consist of 2 student engineers from each region, plus the FISITA VP Education and the Education Officer.

This is a great opportunity to make a lasting contribution to engineering education, to network with fellow students and experienced industry people and get valuable experience for your resume! As if that wasn't enough, we're even offering USD 200 in Amazon vouchers for all participants.

To apply, just send a short statement telling us why you would like to be involved with the new FISITA Student Web Site and what you could bring to the project.

For more information and to find out whether you are eligible, please contact

Ms. Emer Padden, Education Officer at
e.padden@fisita.com

## **Apply for a FISITA Student Travel Bursary**

#### Eligibility criteria

To be eligible to apply for a bursary of up to €2,000 you must:

- be studying engineering at undergraduate or postgraduate level at a recognised college or university
- have arranged an industry or research placement in an automotive company or organisation overseas
- be a member of a FISITA member society

For further information on how to apply for a FISITA Student Travel Bursary please see

www.fisita.com/students/bursary

or contact Emer Padden, FISITA Education Officer

e.padden@fisita.com



#### Tell us about the 'Karmann'

She is a Volkswagen Karmann Ghia Convertible, built in 1970; the colour is 'signal orange' a trendy colour at that time. It is a sporty body on a very simple VW Beetle chassis. We bought her from a vintage car enthusiast in Hamburg.

#### What do you love most about her?

It is terrific to drive her on secondary roads with the roof open. The handling is easy and comfortable; she is a rather roomy two-seater and can carry luggage for two or more weeks of travel.

Because she is a rather 'late' version she has a laminated windscreen, disk brakes at the front axle, head restraints, seat belts and windshield washer – nearly no compromise in safety compared to a modern vehicle.

#### What annoys you most about her?

Sometimes it is annoying that she has 44 hp and a maximum speed of 125 kph only. Driving on motorways is a problem because one cannot escape trucks and buses if they run at maximum speed.

Also annoying is that my wife likes to drive her as much as I do. So sometimes there is a debate as to whose turn it is ...

#### Is she rare?

Although more than 86,000 units of the convertible were produced from 1955 to 1974 (about 400,000 of the sister model, a coupe) – the main market being the US – due to deficiencies in corrosion protection, maybe only a thousand of them have survived world-wide.

#### Has she ever let you down?

Only once we had a carburettor problem but we could limp home without major trouble.

#### Does she have a pet name?

No – she is simply 'The Karmann'.

## What's the best thing that ever happened to you in it?

The best thing that happens very often is that many people want to buy her from us on the spot because she is in such a good condition. But she is not for sale, absolutely not!

It is very entertaining when driving uphill because of her low power. The air-cooled engine in the rear makes a grumbling noise like a Porsche and the message is: 'We will make this hill like we did all the others!' In fact one time we crossed the Alps on secondary roads to visit friends in Italy!



"... my wife likes to drive her as much as I do. So sometimes there is a debate as to whose turn it is

If you are in love with a car, please tell us about it: insidetrack@fisita.com

## IMECHE Chairman's Address: 10.12.08

# Engineering the Future in a Changing Climate



Prof. Richard Folkson, Chairman of the IMechE Automotive Division

Chairman of IMechE's Automobile Division 2009, Prof. Richard Folkson, gave his Chairman's Address on Climate Change in December, focussing on the huge challenge that climate change poses to automotive engineers, and discussing energy alternatives and automotive solutions.

It's a long established tradition that the Chairman of IMechE's Automobile Division gives an address to the Institution's members on a subject close to his/her heart. For 2009 AD Chairman, Prof. Richard Folkson, the subject had to be climate change, specifically the huge challenge it poses to automotive engineers.

Prof. Folkson began his address, given in December 2008, with an overview of current scientific thinking on climate change, including an analysis of global CO2 levels, UK energy production and emissions by sector, global factors affecting  $\mathrm{CO}_2$  production, energy sources and the impact of motor vehicles.

He then presented an evaluation of current Hybrid solutions in comparison with alternatives including Advanced Gasoline, Advanced Diesel, Biofuels, Hydrogen ICE and ultimately, Fuel Cell powered vehicles.

Also included was a review of the Transport for London – Hydrogen Powered Fuel Cell Bus trial, in which 36 buses operated in 12 cities around the world for 27 months, demonstrating the FC technology to be highly reliable, with 98% availability.

Prof. Folkson stressed the importance of affordable mass market technology and looking to the future (50 years+) forecast a role for solar energy as a long-term solution to the planet's energy needs, assuming breakthroughs in chemistry could be realised. Concluding, he told AD members that climate change will not be solved by politicians but rather by technology and consequently this is an exciting time for engineers and a major business opportunity for many.

Prof. Folkson joined the IMechE as a student member at the age of 16 when studying for his O-levels, before going on to study Mechanical Engineering at Imperial College, following which he joined Ford Motor Company in Product Development where he worked for the next thirty years, ultimately becoming a Chief Engineer responsible for Engineering Standards across all brands owned by Ford including Ford of Europe, Jaguar, Land Rover, Volvo, Mazda and Aston Martin.

To download or listen to Professor Richard Folkson's address, please go to: www.imeche.tv/default.asp?pbv=80&pbvt=w

APAC15 Conference will be held in Hanoi, Vietnam, October 26–28 2009

## APAC15 Conference – new deadline for submissions

Preparations for APAC15 – the Asia Pacific Automotive Conference are now well underway, with visitors expected from over 50 countries. The event will this year be organised by VSAE.

APAC attracts engineers, scientists, technical specialists and students from all over the world, with delegates from all sectors – from OEMs and systems suppliers to academia and government bodies.

The new deadline for abstract submissions will be March 20th and a number of keynote speeches have been confirmed – including Prof. Harry Watson from the University of Melbourne and Mr. Minoru Shinohara, Senior VP of Nissan Motor Co in Japan.

More information www.apac15.vn



This year, the 5th Edition of Formula SAE Italy will take place for the first time in the Riccardo Paletti Circuit, Varano de'Melegari. Here we ask the Manager of the competition, Roberta Reggiani a number of questions about their new



## Why did you decide to change the location of Formula SAE Italy?

We decided to change the location of the 5th Edition of the Formula SAE Italy in order to give more teams the opportunity to attend our event. Although Ferrari Fiorano Circuit is a very exclusive place, it is limited in space and not available for more than three days.

## What advantages will the new venue bring to the competition?

The teams will have the opportunity to work in a real pit, the paddock will allow a better organization of all elements of the event, and the additional day of the competition will make it a more relaxed time, and allow more contact between judges and team

members. Last but not least, the venue offers the possibility of organizing some kind of social event where the students will have fun.

# How big will the event be in comparison to previous years?

We will accept 40 teams in class 1 and 5 teams in class 3 – that means 12 teams more than the 2008 event.

## What do you hope to achieve from this year's event?

The Formula SAE Italy event is growing every year, this year we hope that we will offer a great learning opportunity to a great number of students!

## New Staff at FISITA Headquarters

In the last few months there have been three new additions to the staff at the FISITA London office.

**Kathryn Hawkins** Communications Officer k.hawkins@fisita.com

**Emer Padden** Education Officer e.padden@fisita.com

**Charlotte King** PA to the Chief Executive c.king@fisita.com



#### Above, left to right:

 $Kathryn\ Hawkins, Emer\ Padden\ and\ Charlotte\ King$ 

## Competition

**Congratulations to Valentin** Ivanov from the Technical University of Ilmaneu, who is the lucky winner of the collectible model of the Thrust SSC - the world's first supersonic car.

Valentin correctly guessed the name of the car that will be created by Richard Noble and Andy Green to reach 1,000 miles per hour – the answer was Bloodhound SSC (Supersonic car). This time we're offering you the chance to win a beautiful Minichamps 1970 Karmann Ghia Convertible in orange – almost identical to Detlef Frank's, but a bit smaller, (43 times smaller to be

All you have to do is answer the following question:

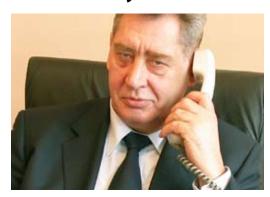
The Karmann Ghia has appeared in a number of films dating from the 1980's to today. Can you name

Email your answer to insidetrack@fisita.com 11

Good luck!



### **Prof. Anatoliy Karunin**



It is with great sadness that we report the death of Prof. Anatoliy Karunin, Vice President of AAE and former Rector of the Moscow State Technical University (MAMI), who passed away in January following a long illness.

Prof. Myoungho Sunwoo is the 2009 President of KSAE, Korea

Dr. James E. Smith, PhD, FSAE is the 2009 President of SAE International (as of Jan 29th)

Dr. Marco Küng new Exec. VP of SAE Switzerland

Prof. habil. dr. Marijonas Bogdevicius is now President of LAIS, Lithuania

Mr. Vitaly Gorbash is now Executive Secretary of AAA, Belarus Dr. Heorhi Viarshyna is now Assistant to the Chairman of AAA, **Belarus** 

Mr. Luis Afonso Durgante Pasquotto is the new VP of AEA, Brazil

Ms Carolina Chaud is now Planning Analyst at AEA, Brazil

Stephen Tetlow is the new Chief Executive of IMechE

## **inside**track

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SAE Congress – Detroit

FISITA 2010 - Budapest, Hungary

**Executive Board, Committees and Council** 

