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Face-2-Face



This month, we are introducing Dr. Reji Mathai, Executive Member 2014-2016.

Dr. Reji Mathai, Chief Research Manager, Indian Oil Corporation Limited, R&D Center

Introduction

Dr. Reji Mathai has been a member of SAEINDIA since 1999 and is presently working as an Executive Member of SAENIS.

Professional Highlights

Dr. Reji Mathai did B.E. from S.G.S Institute of Technology and Science, Indore and later pursued his M.Tech from IT-BHU & PhD from IIT, Delhi. He has more than twenty years of experience in engine testing for lubricant development, establishing fuel economy and developing test methodologies at Indian Oil Corporation's Research and Development center in Faridabad.

Some of the glimpses of his enriched professional career are:

- * Lubricant evaluation on ASTM standard engine test benches and indigenous engines
- * Developing test methods for evaluating lubricants
- * Assess effect of Alternative fuels like HCNG, bio-diesel on lubricants, Ethanol blends on vehicle performance.
- * Creating testing facility for EURO IV /V engine testing and mass emission measurements.
- * Provide faculty assistance for automotive tribology, Lubricant specifications w.r.t-engine tests.
- * Life Member of Tribology Society of India and Treasurer of CIMAC India.
- * Part of organizing team for various conferences like ISFL, Petrotech, CIMAC.
- * Member of BIS & CPCB committees.
- * Published & presented more than 25 papers in various national and international journals.
- * Petrofed award: Innovation of the year (Team) 2006-07 for developing lubricant for marine engines.

Experience in SAENIS

Dr. Reji Mathai has been actively involved in SAENIS activities & has a fruitful experience throughout his entire journey in SAENIS. He was a part of the biggest collegiate gathering at Jaipur last year. Currently he is providing support to the EC of SAENIS to fulfill its plans.

Vision for SAENIS

"I crave for SAENIS to be a body to disseminate knowledge to all concerned especially to the teaching community so as to disseminate practical knowledge & to enhance student participations through interactions & demonstrations.



TOPTECH Program on Fatigue Analysis Simulation & Testing

5th February'15



SAEINDIA Northern Section in association with Maruti Suzuki India Limited and Engineering Center Steyr & Finite To Infinite organized Top tech program on Fatigue Analysis Simulation and Testing on 5th February'15 at Japanese Hostel, Gurgaon.

The program aimed at giving an overview of FEA based Fatigue Analysis Simulation & Testing for automotive industry applications to help R&D, Design, CAE, Test and Data Acquisition engineers to gain confidence in their Design, Simulation and Testing.

The program commenced with a brief overview of fatigue analysis, wherein it's importance in automobile industry was explained. Uniaxial and Multi-axial fatigue testing were also briefly discussed. Following this, Mr. Wolfgang Huebsch, Vibration and Thermo Mechanical Fatigue Expert explained about the Non-Metal fatigue analysis and Vibrational fatigue in detail.

In the later part of the session, Mr. Axel Werkhausen, who is a Weld Fatigue Analysis Expert and has a rich experience of more than fifteen years in the field of Fatigue analysis, discussed the different techniques of Weld Fatigue like Seam weld and Spot Weld and their fatigue analysis.



Future of Emissions Regulations

23rd February'15



SAEINDIA Northern Section in association with Maruti Suzuki and Horiba jointly organized a technical seminar on "Future of Emission Regulations" on 23rd February 2015. The event was organized at Japanese Hostel, Gurgaon. More than 30 participants from various organizations like Maruti Suzuki, Denso, NATRIP, International Centre for Automotive Technology (iCAT), IOCL, Mitsui, Minda, Escorts and many more were benefitted from the above program. The seminar was targeted to R&D persons, Engineers, students and faculty interested in emission measurement and testing, fuel economy improvement and related areas. Emission and Future Regulations along with related solutions from Horiba were discussed.

The seminar started with welcome note by Mr. P.Panda, VP Powertrain Development, Maruti Suzuki India and by Mr. Prakash Abhyankar. Following it, Mr. Les Hill, Global Product Manager, Horiba Ltd focused on new emission trends in US and European Nations. He stated the worldwide regulations namely WLTP cycle and Real world driving emissions that how they originated, test conditions and the new emission components which may come in future. Mr. Arun Aatkari, Senior Manager, Horiba explained the future emission measurement technologies of Horiba. The interaction during the lecture was intensive and feedback was quite positive. Participants learnt about the future emission trends.

Mr. Anoop Bhat, GM (Engine Calibration and Vehicle Testing), Maruti Suzuki India Ltd concluded the event with the vote of thanks and honored dignitaries with mementos.



CO₂ Reduction Requirements and Strategies

23rd March'15



SAEINDIA Northern Section in association with M/s Delphi organized a seminar on "CO₂ Reduction Requirements and Strategies" on 23rd March 2015 at Crowne Plaza, Gurgaon. The seminar was intended for CO₂ reduction requirements & strategies, brushless pump and controllers solutions from Delphi. The seminar targeted to the R&D persons, Engineers, students and faculty interested in these related areas.

Senior Vice Chairman-SAENIS, Mr. P Panda gave a welcome note to commence the event. The requirements of CO₂ Emission to meet Fuel Economy were discussed by Mr. Xu Xinagdong, Director, Asia Pacific, Delphi Powertrain and a Power train technologies expert. Followed by this Mr. Phil Anderson explained about the Brushless Technology. Thereafter, Controller strategies for Brushless Pumps was discussed. A Case study on CO₂ Emission reduction using Brushless Technology was then discussed which gave an insight into this technology.

The session concluded with a vote of thanks.



Tech Buzz

Mercedes-Benz has taken the next step in autonomous driving with the debut of its pioneering F 015 Luxury in Motion – an electric concept car that can drive itself.

Key Features: Constantly updated real-time traffic information; Music streamed direct to car; UK call centre-based concierge service; e-Call informs emergency services in the event of a crash; Syncs with contacts, calendar and email

What is BMW Connected Drive?

Car ownership is on the cusp of being revolutionised in the next few years, as cars become connected, using embedded SIMs to communicate with cloud-based-servers. The first car company to do this on any scale is BMW, which has been embedding 3G SIM cards (with unlimited data roaming in six European countries,



BMW Connected Drive : Performance

The in-car interface of a Connected Drive-enabled car is BMW's iDrive system, based around a rotary controller in the centre console (it is also surrounded by shortcut buttons and incorporates voice control and a touchpad on the top of the controller that allows you to input information by 'writing' it with your finger). Information is displayed on a colour LCD display in the dashboard. The Connected Drive menu contains submenus, including information about servicing, any messages that you will have sent to the car, smart phone apps, web radio plus BMW Online, which features news, weather, email and personalised apps.

BMW Connected Drive : Store

In effect it has its own App Store – that owners can open an account with and, in the next 12 months, download apps from at any time during their ownership of the car.

BMW Connected Drive : Menu

In the Connected Drive menu is Info Plus, a 24/7 concierge service that connects you by phone to a 'personal assistant' at a dedicated call centre. They can help you with a wide range of information, including finding a restaurant local to where you are at the time, times of airline flights or films at the cinema, or even find a hotel and book a room for you.

BMW Connected Drive : Navigation

It is a core service of Connected Drive, especially as the car's embedded SIM enables the car to transmit GPS and speed information to a cloud server and, in return, receive real-time traffic information (RTTI) based on the same data from phones in other cars on the road. This means that you can enter a destination and the car will automatically use the least congested roads en route.

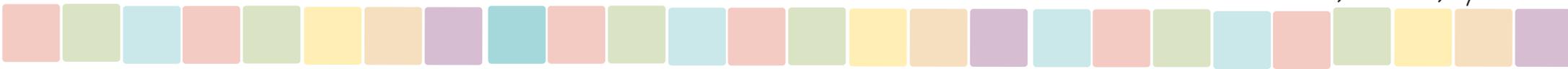
BMW Connected Drive : Multimedia

It includes an Online Entertainment option that currently offers a music streaming service that gives Connected Drive users the first unlimited on-demand service in a car, with access to over 28 million tracks.

In Conclusion, Car owners will soon become more aware of connected capability and see their vehicles as another mobile device. Connected Drive's array of considered and practical services demonstrates that drivers will soon be able to make the most of their time in the car – particularly useful if you're a high-mileage commuter or business driver.



Source : <http://www.trustedreviews.com/bmw-connecteddrive-review>





Patent

Ford Motor Co. was sued for patent infringement more than a dozen times between 2012 and 2014, but not by jilted suppliers or rival automakers. It was the "patent trolls". Read more to find out. . .

These outfits, also known as patent assertion companies, don't make products. Instead, they buy patents and file lawsuits to allege misuse of intellectual property, winning billions of dollars in licensing fees and court judgments.

They have been a consistent thorn in the side of technology companies since the 1990s. And the auto industry is their newest target.

Patent assertion companies filed 107 lawsuits against automakers and suppliers in 2014, up from 17 in 2009, according to RPX Corp., which bills itself as a defender against trolls.

Now Ford is pushing back. The company told Automotive News that it recently inked a contract with RPX, which has spent nearly \$1 billion amassing a portfolio of patents that could otherwise pose a threat to members such as Intel Corp., Microsoft Corp. and Samsung Electronics Co.

"We take the protection and licensing of patented innovations very seriously," a Ford spokesman wrote in an email. "And as many smart businesses are doing, we are taking proactive steps to protect against those seeking patent infringement litigation."



RPX members pay an average of \$1.5 million annually for access to a shared portfolio of patents. Most of the portfolio is geared toward information technology, but RPX plans to add automotive patents.

"At the end of the day it's a cost, it's highly unpredictable, and because it's highly unpredictable, it's a lot more of a distraction than it should be," as per John Amster, the CEO of RPX.

To its practitioners, patent assertion is merely the exercise of a legal right. Patents are an asset, they argue, and asserting patent rights is no different from buying a parcel of land and collecting rent on it.

But defending against a patent lawsuit can cost an automaker millions of dollars, and losing in court can cost significantly more.

In 2011, Hyundai was ordered to pay \$11.5 million in damages to a company called Clear With Computers, which claimed Hyundai had violated its patent on a method of designing customized booklets for prospective customers.

A year earlier, Toyota settled with a company called Paice LLC over a claim that the Toyota Prius' hybrid powertrain violated one of Paice's patents. Terms of the settlement were undisclosed, but earlier, a court had ordered Toyota to pay a \$5 million penalty and \$98 in royalties for every hybrid sold.

Ford's fight against patent challenges goes back more than a century. In 1895, New York attorney George Selden secured a patent on his idea for an automobile powered by an internal combustion engine.

Selden never built an automobile, but backed by a wealthy investor, he threatened to sue U.S. automakers.

Most of them paid royalties rather than go to court. The exception was Henry Ford, who prevailed in court by arguing Selden's patent was limited to two-stroke engines, not the four-stroke engines in his cars.



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