It gives me immense pleasure to reach out to the SAENIS fraternity through Sampark. SAENIS has given a very good platform for sharing ideas, advancement in technologies, and at the same time encourage the student fraternity to come out of their classrooms and bring out their creativity to address the technological needs of the society. Sampark has provided a platform for bringing out such happenings to the forefront.

As an automobile company, our focus today is on greener technology and one such initiative taken up by SAENIS is Effi-cycle which was successfully conducted this month. This event, which was started in 2010, is organized for undergraduate and graduate students and is aimed to design, simulate and fabricate a highly efficient human powered vehicle which is aerodynamically and ergonomically stable. The popularity of such events can be judged from the huge turnout that this edition had over its last edition. The need to tackle with the real world engineering problems, working in multidisciplinary teams, practicing designs for manufacturability and managing a full product development cycle of life has made the essence of event worth the rebellious spirit of competition.

We should continue with such endeavors and involve our youth in more such events to channelize their energy, their creativity to bring mobility solutions for our country.

In addition to the greener technology, we are also looking forward to simultaneous engineering - the integration of roles of a design engineer, manufacturing engineer, supplier, marketer, and planner; increased reliance of auto manufacturers on suppliers and design houses to support the design and manufacturing functions. With belief in my mind, I wish all the readers to endeavor for a better and greener tomorrow.

HEMANT KUMAR SWAIN
General Manager (New Projects), MSIL
Member-Executive Committee,
SAENIS

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SAEINDIA invites applications for SAEINDIA Foundation Scholarships/Student Paper Awards.

This month’s issue is featuring
Mr. Sanjay Thakar
General Manager, MSIL
and Member-Executive Committee,
SAENIS MC 2012
in the section
FACE-2-FACE...
This month, we are introducing Mr. Sanjay Thakar, our new SAENIS Management Committee member 2012-2014 in this column.

Mr. Sanjay Thakar, General Manager, MSIL and Member-Executive Committee, SAENIS.

An introduction:

Mr. Sanjay Thakar is having an experience of more than 28 years and is currently working as General Manager at Maruti Suzuki India Limited. He is a Mechanical Engineering graduate from Delhi College of Engineering 1984 batch.

Qualification and Experience:

Mr. Thakar Started his career as Graduate Engineer Trainee in Maruti Suzuki and has hands-on experience in contemporary advance technologies and project management. Mr. Thakar has been instrumental in setting up Tool Room and Die shop at Maruti Suzuki. He successfully spearheaded development of ‘Skin Panel Dies’ for passenger cars for the 1st time in India. He has a vast knowledge of Vehicle Body Manufacturing covering all aspects from concurrent engineering, tooling to vehicle build.

Experience in SAENIS:

Mr. Thakar is associated with SAEINDIA and SAENIS right from its inception. He has been the main driving force behind the knowledge sharing sessions in the area of manufacturing technology as part of SAENIS. Currently, he is working and contributing as Secretary of SAEINDIA Foundation.

Vision for SAENIS:

My wish is to see SAENIS as the most sought after professional body in India, amongst students and professionals related to the Automotive field.

We wish Mr. Sanjay Thakar All the Best!!!!
EFFI-CYCLE is an Inter-collegiate event of SAEINDIA Northern India Section with the objective of providing an opportunity for the students to explore ‘Environment Friendly and Economical’ solutions for the day-to-day mobility needs of people. Launched in 2010, the event is conducted annually by SAEINDIA Northern India Section and Maruti Suzuki India Limited. It was the third successful edition of SAENIS EFFI-CYCLE 2012 and was held at UIET Chandigarh from 12th-14th October 2012 and was widely covered by local and National print and electronic media.

India is the fourth largest importer of fossil fuels, with automobile industry accounting for the largest consumption of fossil fuels and there is a growing need to design and develop fuel efficient vehicles not only to reduce our overall fuel consumption but also to save our environment from pollution. Efﬁ-cycle is an initiative taken up by SAENIS to sensitize young engineers towards this cause.

EFFI-CYCLE derived from Efficient–Cycle was started with the objective of providing opportunity to the students to conceive, design and fabricate a three wheel configuration vehicle powered by human-electric hybrid power and capable of seating two passengers. The event witnessed an overwhelming participation of 125 teams from across the country in “Virtual Efﬁ-cycle” in the month of July ’12. Top 62 qualiﬁed teams including three All Girls’ teams competed against each other in the main event at UIET.

The event kicked off with the Inaugural Ceremony presided over by Chief Guest Sh. Bhupinder Singh, Additional Transport Commissioner, Haryana Govt. The dignitaries present included Mr. A.K. Bhandari (Panjab University), Prof. Renu Vij (UIET), Mr. Alok Jaitley (MSIL) and Mr. U D Bhangale (ICAT).

Mr. Alok Jaitley, Convener, Efﬁ-cycle 2012 highlighted the need of Efﬁ-cyle as an opportunity not only to hone the skills of young engineers in automotive technology, but also to align them with the overall dream of making India self sustained in green energy.

During the 3 day course of the event, the vehicles were tested to comply with the fundamentals of ergonomics and at the same time for being dynamically stable and strong to endure neck breaking loads coming on them.
Various industrial affiliates supported the event wholeheartedly both in Financial and Intellectual sponsorship. A team of 40 professionals carefully picked from Automotive companies like companies like Maruti Suzuki India Limited, ICAT, NATRIP and other partners and associates of EFFI-CYCLE’12 were present to evaluate the teams on various parameters.

The first day comprised of Static tests which was spread over the first two days and included Technical Inspection (categorized into Go-No-Go Gauge test, safety and brake test), Marketing Presentation and Design Evaluation. It was mandatory for all the teams to clear the static evaluation in order to participate in the dynamic event. The judges inspected the vehicles to declare them as Technically Fit for the dynamic events. One could easily spot the participants engrossed in last minute touch ups, welding, cutting and assembling their human powered vehicles in order to get the coveted ‘Technical inspection OK’ emblem.

After all the hard work of the day, the technical event was followed by a Cultural Night. Students tuned their guitars and juddered the stage with a steady stream of rock tunes and some heart throbbing performances.

The second day continued with the static test followed by the dynamic test. Dynamic test evaluated the vehicles for sound engineering practices that have gone into it, the agility of the vehicle in terms of gradient negotiation, speed, acceleration and maneuverability characteristics. The second day ended with a boisterous cultural night. Students gravitated to the dance floor and the whole arena got filled up with the mist of music, pomp and light.

Last day of the event was slated for the race which checked vehicles' ability to endure the treacherous durability test. The vehicles had to go through muddy terrain to prove their mettle in scaling heights, show off their acceleration and demonstrate the efficacy of their brakes.

33 hybrid vehicles finally qualified the ultimate tests of endurance and maneuverability. The race took place in multiple laps (each of 1.4 Km) which took place at the UIET campus. Energy, enthusiasm and emotions are the words that defined the zeal of race warriors. Students cheered their teammates to grab the champion’s crown. The event was concluded with the Valedictory Session.
Mr. Arun Grover, Vice Chancellor of Panjab University graced the Valedictory event as the Chief Guest. Mr. I.V Rao (Chairman-SAENIS) and Dr. Tapan Sahoo (Secretary-SAENIS) also graced the event with their kind presence. The event culminated with the announcement of winners. Mr. I V Rao announced Innovation Award worth Rs.25,000 for the most innovative design. Mr. Arun Grover also announced a Special Award for the winning team on behalf of Panjab University.

Various awards amounting to Rs. 5 lakhs were given to the winners in different categories as listed below:

**Overall Joint 1st Winner (Rs. 1 lakh each):**
Jamia Millia Islamia, New Delhi
Amrita School of Engineering, Kerala

**Overall Third Place (Rs. 50,000)**
Walchand College of Engineering, Maharashtra

**Design Award (Rs. 25,000)**
PES Modern College of Engineering, Pune

**Cost Award (Rs. 25,000)**
Shri Govind Ram Seksaria Institute of Technology and Sciences.

**Ergonomics Award (Rs. 25,000)**
BITS Pilani

**Acceleration Award (Rs. 25,000)**
Amrita School of Engineering, Kerala

**Utility Award (Rs. 25,000)**
PES Modern College of Engineering, Pune

**Hybrid Drive Award (Rs. 25,000)**
Dr. Mahalingam College of Engineering & Technology, Pollachi, Tamil Nadu

**Durability Winner (Rs. 30,000)**
Jamia Millia Islamia, New Delhi

**Durability Runners Up (Rs. 20,000 each)**
Amrita School of Engineering, Kerala
Walchand College of Engineering, Maharashtra

**Innovation Award (Rs. 25,000)**
Walchand College of Engineering, Sangli, Maharashtra

The event was sponsored by Maruti Suzuki India Ltd, Spark Minda, Motherson Sumi Systems Ltd, Vee Gee Automotive Parts, ICAT, Subros Ltd, Lumax Industries Ltd and Altair.
A combination of creativity and work, a great music! Thank you,
I am simply loving it! I'll share my experience.

Xavim Somen (spectator)

A challenging event that I've never witnessed. Efficycle taught you all that you could learn in me.

Great job! Great party!!

Yasmin

The greatest event in the recent summit.

SAE Efficycle has been an amazing experience for all of us. Looking forward to participate every year, with some enthusiasm and zeal.

Shyam Singh

1917, Delhi

It was a very good experience. It gives us a good exposure to practical knowledge. The went is very well organized and I hope that will continue in future.

Hemanth Babu

Team Vicharam

IIT Rohini
SAENIS fraternity is excited to share that Prof. Avinash Kumar Agarwal has received prestigious designation of SAE Fellow for the class of 2013.

Here we take immense pleasure to introduce him:

MESSAGE FOR OUR READERS

Warm Greetings to members of SAE India from Engine Research Laboratory, IIT Kanpur (www.iitk.ac.in/erl). I would like to invite young and energetic students, who are eager to take challenging career in the area of engines, emissions and automotive technology development. For those of you, who are in love with generating and exploring new ideas, converting the ideas to technologies and tickling your nerves with some challenging industrial and real life futuristic projects, ERL is undoubtedly one of the best places to be. Our laboratory is engaged in blending sophisticated sensor technology, electronics, computers, optics, physics and chemistry in the IC engines with an objective of expanding the envelope of understanding IC engines. We are proud to be the best and most active engine research laboratory in India and have an excellent standing among our international peers. Our students have earned great laurels for the lab, institute and the country and if you think, you are ready to take up such challenges and fit the bill, you are welcome to write to me at akag@iitk.ac.in

Prof. Avinash Kumar Agarwal joined Department of Mechanical Engineering, IIT Kanpur in 2001 and is currently a Professor of IC Engine. He graduated from Malviya Regional Engineering College Jaipur (1994). After working for M&M Ltd for a short stint, he joined IIT Delhi for graduate studies in Energy. His area of doctoral research was development of biodiesel and related engine performance, emissions and tribology investigations. He joined Engine Research Center, University of Wisconsin, Madison, USA as a Post-Doctoral Fellow (1999 – 2001) on a project sponsored by Cummins, Lubrizol and US Army. He has been a visiting professor to Wolfson School of Mechanical and Manufacturing Engineering, University of Loughborough, UK (2002), Photonics Institute, Technical University of Vienna, Austria (2004), and Hanyang University, South Korea (2012). His areas of interest are IC engines, alternative fuels, conventional fuels, lubricating oil tribology, emission control, optical diagnostic techniques, laser ignition, HCCI, particulates, micro-sensors, and large bore engines. He has published more than 90 peer reviewed international journal papers and 60 peer reviewed international conference papers. Prof. Agarwal is an associate editor of “International Journal of Vehicle Systems Modelling and Testing” and is serving on the editorial boards of ‘Journal of Automobile Engineering (IMechE Part D), ‘Recent Patents on Mechanical Engineering’, and ‘International Journal of Oil, Gas, and Coal Technologies’. He has recently edited “Handbook of Combustion” (5 Volumes), published by Wiley VCH, Germany which is one of the most updated compilations on ‘Combustion’ globally. He has also edited five special publications of SAE International apart from a special issue of Journal of Automobile Engineering, on “Alternative Fuels” (Aug 07).

Prof. Agarwal has recently been designated as Fellow of SAE International, USA in class of 2013. He is recipient of several prestigious national and international awards such as “NASI-Reliance Industries Platinum Jubilee Award-12” for Application Oriented Innovations in Physical Sciences; INAE Silver Jubilee Young Engineer Award 05,12; Dr. C. V. Raman Young Teachers Award: 11 for Excellence in the field of Engineering Education; SAE International’s Ralph R. Teetor Educational Award -08; INSA Young Scientist Award-07 UICT Young Scientist Award-07 by University Institute of Chemical Technology, Mumbai; AICTE Career Award for Young Teachers-04; DST Young Scientist Award-02; and DST BOYSCAST Fellowship. IIT Kanpur recognized him as “Devendra Shukla Research Fellow (2009-12)” for his contributions in the field of Energy. At IIT Kanpur, he has established a state-of-the-art “Engine Research Laboratory” (www.iitk.ac.in/erl) and is leading a 20 member strong research group.
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