iTEC INDIA 2017

iTEC INDIA 2017, second International Transportation Electrification Conference, was inaugurated by Dr. Abhay Firodia President, SIAM and Chairman, Force Motors Ltd. The three day conference from 13th to 15th December 2017 was held at Hotel The Westin, Pune was jointly organised by SAEINDIA, Institute of Electrical and Electronics Engineers Industry Applications Society (IEEE IAS) and The Automotive Research Association of India (ARAI). The main focus of the conference was on the theme “Electric vehicle ecosystem-Resetting the future of mobility”.

Mr. Doug Patton, President, SAE International; Mr. Murli Iyer, Executive Advisor, Global Affairs, SAE International; Dr. R. K. Malhotra, President, SAEINDIA & Director General, Federation of Indian Petroleum Industry (FIPI); Mrs. Rashmi Urdhwareshe, Chair, Steering Committee of iTEC INDIA 2017 Director, ARAI & Vice President, SAEINDIA; Dr. Tomy Sebastian, President Elect, IEEE IAS & Director of Motor Drive Systems, Halla Mechatronics, Michigan, USA; Mrs. Ujjwala Karle, Chair, Organising Committee of iTEC INDIA 2017 & General Manager, ARAI and other members of iTEC INDIA 2017 committees were present on the occasion.

iTEC INDIA 2017 was supported by the Department of Heavy Industry, Government of India. A display of the latest electric vehicles was showcased during iTEC INDIA 2017 highlighting the Nissan LEAF, Mahindra Reva e2o, etc. amongst others.

The conference addressed technical interests related to the electrification in the transportation sector including but not limited to, electric cum hybrid vehicles, plug-in-hybrid vehicles, rail road and off-road vehicles. In addition the event comprised panel discussions, short courses and tutorials, presentations, exhibition, ride and drive of electric vehicles besides, being kept on display. About 120 technical papers were presented at the conference by participants including overseas authors.

The 3-day conference featured 30+ keynote speeches from eminent speakers including Mr. Jun Iwamoto, Chief Engineer, Honda R&D Co. Ltd., Japan; Mr. Blandow Volker, Global Head, E-mobility, TUV SUD, Germany; Dr. Guenter Fraidl, AVL, Austria; Prof. Ashok Jhunjhunwala, Indian Institute of Technology, Madras; Dr. Shankar Akella, Siemens Industry Software, Chennai; Taro Aoyama, Toyota Kirloskar Motors Ltd.; Mr. Greg Harris, Horiba MIRA, UK; Dr. Prabhakar Patil, Ex LG Chem, USA; Michael Kellar, Charin EV, AG (VW Group); Mr. Chaitan Maini, Sun Mobility; Mr. A. A. Deshpande, ARAI and Mr. Katsuya Inoue, Honda R&D.

The event was sponsored by reputed industries such as AVL, Horiba, Maruti Suzuki, Bosch, Siemens, Honda Cars India, Tata Motors Ltd., Valeo, Mathworks, Mahindra Electric, Toyota Kirloskar Motors Ltd, ABB, Infineon, KPIT, Ansys and Mercedes Benz.
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Member

Dr. M. K. Ravishankar
Member
For the Panel Discussion following were the members of the panel viz,

- Mr. Sumantra B Barooah, Executive Editor, Auto Car Professional (Moderator),
- Dr. Prabhakr Patil, Ex CEO, LG Chem, USA
- Mr. Greg Harris, Head Commercial – Strategic Projects & New technologies, Horiba MIRA
- Mr. Anup Sable, CTO, KPIT
- Dr. Tapan Sahoo, Sr. Vice President, Maruti Suzuki India
- Dr. Rahul Walawalkar, Executive Director, India Energy Storage Alliance
- Mrs. Rashmi Urdhwareshe, Director, ARAI and
- Dr. B B Ahuja, Director – College of Engineering Pune (COEP).

The various Exhibitors who took part in the event included ABB, Sunlectra Auto, Pako, LDRA, OPAL-RT, Hybridtronics, Altair, National Instruments, ACME, Madhura International, Map my India, Axiom, Honda Cars India, Arrow Electronics India Pvt. Ltd., Araymond, Ador, Asia Electric, Littelfuse Far East Pte Ltd., Tata Consultancy Services, Sinsil International, Greenfuel and Dynafusion.

During the valedictory function Dr. Akshay Rathore, Chair, Technical Committee, iTEC INDIA 2017, summarized the three day event. This was followed by the Inauguration of “E-Mobility - Center of Excellence (COE) of ARAI” by unveiling of Corner Stone at the Hands of Chief Guest Shri. Anant Geete, Hon’ble Minister for Ministry of Heavy Industries & Public Enterprises, Govt. of India followed by Valedictory address by Chief Guest.

Dr. A.K. Jindal, Vice President and Head Engineering (CVBU), Tata Motors. Mrs. Ujjwala Karle, Chair, Organising Committee iTEC INDIA 2017 proposed a vote of thanks followed by visit of Chief Guest to the expo and vehicle display area.

The next edition (3rd) of iTEC INDIA will be organized in 2019 in Bengaluru, India.

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**SAEINDIA SKILL INDIA INITIATIVE (S2I2) – PHASE 2:**

The 2nd phase SAEINDIA SKILL INDIA INITIATIVE (S2I2) was launched at Sri Krishna College of Engineering and Technology (SKCET), Coimbatore on 27th September 2017. The formal inauguration of the event was done through Lamp Lighting by all the dignitaries on the dais. Welcome Speech was given by Dr. R.Soundararajan, Faculty Advisor, SKCET, Coimbatore.

Mr. K.Venkataram, Deputy Director General, SAEINDIA gave the Introduction speech about the event. Mr. C.Pradeep, Deputy General Manager, Mahindra gave a speech about Initiatives for Skill Development and Dr. P. Ashoka Varthanan, HOD, SKCET, Coimbatore, felicitated all the dignitaries including the Chief Guest Mr. D.K.Karthikeyan, Director - Projects, Texas Ventures. The Technical Sessions of the 2nd phase were conducted from 06th to 15th October 2017 at SKCET, Coimbatore. Action Taken Report was given by the DDG, followed by presentations by each of the sections, verticals and boards.

About 20 Students Participated, Course Module - 10 Days of Class room sessions and 7 Days of Industrial Visit. Certification with Grading to students based on assessment. 15 Professional Volunteers from Automotive Industry have been imparting Knowledge sharing and training the students. 8 Colleges across India have already expressed Interest to host the event at their campus for scaling up this programme in future.
SAEINDIA along with ACMA organised the 11th Edition of Automotive Engineering Show (AES) at Chennai Trade Centre (CTC), Chennai from 9th to 11th November 2017 which was spread across halls 2 & 3 of CTC with more than 75 exhibitors.

Thiru M.C. Sampath, Hon’ble Minister for Industries - Industries, Steel Control and Special Initiatives, Government of Tamil Nadu inaugurated the event and said “It gives me great pleasure to be here Tamil Nadu is known for automobile manufacturing and was the earliest state to start car manufacturing. The city of Chennai has emerged as the largest exporter of automobiles in India and today, it is one of the top 10 global auto hubs. This city has an installed capacity to produce 1.42 lakh cars and about 3.61 lakh commercial vehicles every year.”

He also announced a new law “Business Facilitation Act & Rules 2017” which has been enacted by the government of Tamil Nadu. This law will provide an investor friendly environment to enable the potential investors to do business with ease.

This 11th edition of AES showcased new and evolving technology trends which can be adapted to create an efficient working environment on the factory shop floors. The three-day exhibition also hosted workshops on everyday viz,

- On 09th - Surface Engineering in Automotive Industry.
- On 10th - Opportunities for Indian Automotive Manufacturing and
- An exclusive seminar on Post GST Implementation on the final day of the expo.

The exhibition came to an on 11th December 2017 evening with more than 2500 visitors spread across the entire spectrum of automotive industry.

SAEINDIA Automotive Board hosted the Blue Ribbon CXO Conclave on 6th December 2017 at Chennai, during the visit of Mr. Doug Patton, President SAE International to India. The Conference was attended by 50 CXO’s from the Automotive and IT industry. Mr. Doug Patton who is also the Executive Vice President of Denso made a detailed presentation about Intelligent Mobility and Transition to Future and went into depth on Cyber Security in the Connected Vehicle era. He had a small video clip highlighting this factor and how Cyber Risk should be managed by proper safe guards in terms of Products and Production Facility.

Dr. Wilfried Aubur Managing Partner at Roland Berger India spoke on Connected Trucks and effect of cyber security in Indian Automobile Market. As automotive driving progresses from connected and assisted to highly and fully automated, the need of customers for safety, security and data privacy becomes paramount. Hence, with all the advantages that modern technology brings for automotive driving, the cyber security threats that emanate from threat vectors such as internet based attacks, hardware attacks, near-field wireless attacks and sensor attacks must be taken very seriously according to him.

The session also had a panel discussion on Automotive Cyber Security, Threats & Industry Readiness with the panellists viz, Ms.Naveena Swamy, CIO, IITM, Mr.Kaushik Madhavan Director, Frost & Sullivan, Mr.Sanjeev Srivastava, MD, Accenture Technologies, Mr.Magesh Srinivasan, Global Head Connected cars, HCL Engineering & R&D Services and the moderator Mr.Vinod Senthil Founder & CTO of Infysec. The panellists agreed that India has a long way to go to face the emerging challenges in Connected Vehicles & Cyber Security. They also felt that the industry transformation will be driven only by advancement in IT rather than Automotive Industry.
SAEINDIA News

BLUE RIBBON CXO CONCLAVE - BENGALURU:

SAEINDIA Automotive Board hosted the Blue Ribbon CXO Conclave (BRCC) on 8th December 2017 at Bengaluru, during the visit of SAE International President Mr. Doug Patton to India. The Conference was attended by 57 CXO’s from the Automotive and Aerospace industries. Mr. Patton made a detailed presentation about Intelligent Mobility and Transition to Future and went into depth on Cyber Security in the Connected Vehicle Era.

Mr. Satish Sundaresan, MD, Elektrobit India Pvt. Ltd. spoke about the threats, current automotive industry adoption trends, opportunities for companies and challenges facing us in terms of legislation. He illustrated with the live project which they carried out in Germany. Hence, with all the advantages that modern technology brings for automotive driving, the cyber security threats such as internet based attacks, hardware attacks, near-field wireless attacks and sensor attacks must be taken very seriously indeed.

Mr. Shree HARSHA, Business Consulting Director, Transportation & Mobility Industry, Dassault Systems spoke about Automotive OEMs around the world helping them in Digital transformation and proving business value of applying 3DS technology to solve business un-certainties. Some of such places are General Motors USA, Toyota Motor Company, Nissan and Honda Japan, TATA Motors, Ashok Leyland & Volvo Eicher India, FAW Mold and Die, SAIC, Chery Auto, China. Hence, from an Indian perspective, it is important to be prepared for cyber security threats but with the current relatively low level of penetration of connected vehicles there is no reason to panic. On the contrary, for Indian service providers cyber security is a unique opportunity to further entrench themselves in global automotive supply chains.

SAEINDIA Section News - Southern (SAEISS)

LECTURE MEETING – MWC DIVISION:

Lecture Meeting on “Designing Products in Modern Times” was organized by SAEISS - Mahindra World City (MWC) Division on 26th September 2017 at Mahindra World City Club, Mahindra World City, Chengalpattu. The faculty for the Program Faculty is Mr. Sadagopan Krishnan, Vice-President – Engine Development, Ashok Leyland Limited.

Mr. R. Bala Subramanian, Secretary, SAEISS MWC Division and DGM – Program Management, M&M welcomed and introduced the Program faculty Mr. Sadagopan Krishnan to the participants. Mr. Sadagopan Krishnan started his lecture on the given topic with an introduction on the subject and in importance in Automobile industry.

Mr. Sadagopan Krishnan wooed the participants with his exemplary talks. All the participants were very much interested to interact with him. He made the lecture a grand success by visualizing stunning images and videos to garner the participant’s attention.

Mr. C. Pradeep - Chairman, SAEISS MWC Division, PRINCIPAL ENGINEER - VEHICLE INTEGRATION, M&M thanked Mr. Krishnan for his lecture and invited Dr. Leenus Jesu Martin, SRM University to felicitate Mr. Krishnan with the memento for his enlightening session.

The program was attended by 47 participants comprising both from industry and academic fronts. A vote of thanks was proposed by Mr. Baskara Sethupathy, Assistant professor, SRM University & Treasurer SAEISS MWC division. He also thanked the participants and the Program faculty Mr. Sadagopan Krishnan for giving such a wonderful lecture.
SAEINDIA KRT CLUB - INAUGURAL:

SRM University Dept. of Mech. Engg., in association with SAEINDIA Collegiate club conducted the Inaugural function of SAEINDIA KRT Club on 6th October 2017. Dr. M Leenus Jesu Martin, Professor and Head, Department of Automobile Engineering, SRM University, Joint Secretary SAEISS and Dr. R. Rajendran, Professor, Department of Mechanical Engineering, BS Abdur Rahman University, Member and Vice Chairman – KRT Activities were the Chief Guests for the function. Mr. C. Pradeep, Chairman SAEISS - MWC Division and Mr. P. Baskara Sethupathi, Treasurer SAEISS - MWC Division presided over the function as special invitees.

Dr. B Gnana Sundara Jayaraja, Professor & Head, Department of Mechanical Engineering, delivered the welcome address and welcomed the Chief Guests, invitees and the gathering. The chief guests’ introduction was given by Mr. S. Pungaiya, Assistant Professor and SAE Faculty Advisor, Department of Mechanical Engineering. Dr. M Leenus Jesu Martin inaugurated the KRT club and delivered his speech in which he explained the benefits of KRT club in a College.

The inaugural address was given by Dr. R. Rajendran. The club mainly focuses on innovative ideas on automotive subjects leading to quality and product development. Club activities involve various lecture meetings, competitions and trek activities in which the members could participate and gain knowledge.

Finally, the vote of thanks was delivered by Dr. S. Thirugnanam of the host college.

TRACTOR DESIGN COMPETITION – WORKSHOP 1:

SAEISS organized Tractor Design Competition (TDC) Workshop - 1 on 7th & 8th October 2017 at SRM University. Nearly 191 Students from various colleges participated in the workshop. Mr. C. Pradeep, Chairman, MWC Division and Dr. Leenus Jesumartin, Joint Secretary SAEISS welcomed the dignitaries and participants for the TDC 2018 Workshop-1 and also gave a brief outline about the Competition.

Mr. S. Shanmugam, Vice Chairman, SAEISS, graced the occasion and delivered a talk about the importance of TDC 2018 and delivered a speech about Manufacturing of tractor in industries. He also thanked SRM University for hosting the workshop and presented the memento to the host institution.

On day 1 Mr. K. N Balaji (Automotive consultant) handled a session on automotive brakes, Mr. S. Shanmugam, delivered lecture on manufacturing, assembly and Costing. He delivered briefly about the Manufacturing process under going in the industries.

On Day 2 Mr. Muruganantham, Siemens Pvt. Ltd. handled AMEsim for the participants. Mr. N. Ravikumar, BSA University handled fundamentals of Chassis (frame type).

Mr. A. Armstrong, MC Member SAEISS and Mr. C. Sivakumar, TDC Event champion other TDC Members clarified the students queries after the Valedictory. Finally, Mr. C. Sivakumar delivered the Vote of thanks. He thanked the faculty advisors & the management of SRM University, Student volunteers for their continuous supports and cooperation for conducting the workshop and making it a grand success. Thus, the program successfully ended after taking group photography with participants.
LECTURE MEETING – COCHIN DIVISION:

SAEISS Cochin Division conducted the lecture meeting on ELECTRIC MOBILITY IN INDIA - The Future Transportation at Viswajyothi College of Engineering and Technology, Vazhakulam on 14th October 2017. The programme started with the Welcome speech by Mr. Vinoj K, Head of Department, Mechanical Engineering emphasising the importance of the three basic needs of every professional, namely knowledge, skill and attitude.

It was followed by felicitation by Mr. K.K. Rajan, External Director for Nuclear Power Co-operation of India Limited, Academic DEAN & In charge - Institute Interaction Cell, Viswajyothi College of Engineering and Technology. He complimented Mr. Manoj and the students for their work in bringing this professional body to the college and also appreciated the efforts of the members in opting for being a part of a professional body.

Later the Chief Guest of the day Mr. C Pradeep, Principal Engineer, Vehicle Integration Centre, M & M gave a small introductory address based on the industrial revolution and the different generations progressed thus far. Mr. C. Pradeep took the main session about “Electric Mobility in India: The future transportation”. He spoke about the various developmental guideline set by the government. The emphasis was on the 2030 vision of the Indian government to bring electric vehicles in India. He spoke about the various strategies upon which that could be made possible and what are the first stages of technical targets that are being addressed in this situation.

A memento was presented to the chief guest by Dr. K.J. Devasya, Professor, Mechanical Engineering to the chief guest as a token of appreciation. Mr. Kiran Mathew George, Student Chairperson delivered a vote of thanks.

LECTURE MEETING – COCHIN DIVISION:

SAEISS Cochin Division conducted the lecture meeting on ELECTRIC MOBILITY IN INDIA - The Future Transportation at Sree Narayana Institute of Technology, Adoor on 14th October 2017 by by Mr. M.P. Prasad, Renault Nissan Technology Business Center India, Chennai.

The programme started as scheduled with a silent prayer followed by a welcome speech by Mr. Roshan George, Assistant professor Automobile Department. Dr. Keshav Mohan, Academic Chairman delivered the Presidential Address. He invited Mr. M.P. Prasad for lighting the lamp to inaugurate the programme, which was followed by the keynote address of Mr. Francis Augustine Joseph the chairman, SAEISS Cochin division.

Mr. M.P. Prasad started his session by sharing his immense knowledge with the students and explained the futuristic scope of electric vehicles in India, its advantages and how environment could be made safer with zero pollution using electric vehicles. Students used the opportunity for Q & A with Mr. Prasad, which he answered patiently clearing every students query. The students who came from outside did really enjoy the session and considered it an opportunity to view the wider aspects of automobile engineering. After the session, the students got a wonderful opportunity to interview Mr. M.P. Prasad.

Later Professor Mr. Kevin Thomas was invited to convey the felicitation. Mr. Abijith Shyam, Vice chairman, SAEINDIA Collegiate Club delivered a vote of thanks.
SAEISS organized Tractor Design Competition (TDC) Workshop - 2 on 14th & 15th October 2017 at Kongu Engineering College (KEC), Perundurai. Nearly 199 Students of 22 Teams from various colleges participated in the event.

In the inaugural Function, Dr. P. Navaneethakrishnan, Chairman, SAEISS Erode division welcomed the dignitaries and participants for TDC Workshop 2 and gave a brief outline about the workshop. Thiru A. Venkatachalam, Correspondent (KEC), Dr. E. Rajasekar, Professor, IRTT and Secretary, SAEISS, Mr. S. Radhakrishnan, (Retired) Vice-President (R&D) from Rane TRW Steering Systems Ltd, Mr. Armstrong, Principal Member, TAFE and MC member SAEISS, Mr. C. Sivakumar, Asst. Professor, BSA University and TDC Champion, SAEISS, Mr. Karthikeyan, Chief Design Engineer, TAFE, Dr. R. Rajendran, MC member SAEISS, were dignitaries on the dais. They inaugurated the event by lighting the Kuthuvilaku.

Dr. E. Rajasekar presented a memento to the hosting college. Thiru A. Venkatachalam & S. Kuppusamy, Principal, KEC honoured the dignitaries. On Day 1 Dr. E. Rajasekar explained about Tractor Dynamics. Mr. Karthikeyan, explained about Transmission systems. On Day 2 Mr. S. Radhakrishnan explained about the steering systems.

Finally Mr. C. Sivakumar delivered a Vote of thanks. He thanked Mr. K. Bharathiraja, Mr. Satheesh Kumar, the management and Students of KEC for their continuous supports and cooperation for conducting the workshop and making it a grand success.

SAEISS Chennai Division conducted a lecture meeting on “Automotive Drivetrain Engineering (Clutch to Wheels) to achieve Drivability, Fuel Efficiency, Durability, Emission” on 21st October 2017 at MMA, Chennai.

Mr. K.S. Dhianeshwar, Deputy General Manager, Ashok Leyland, Chennai was the speaker for the session. Mr. M. Khader Basha, Additional Director, CVRDE and Chairman, Chennai Division welcomed all the participants and introduced speaker to the participants. Then he handed over the session to speaker for his lecture.

Mr. K.S. Dhianeshwar started his lecture by explaining the topic of the day Automotive Drivetrain Engineering (Clutch to Wheels) to achieve Drivability, Fuel Efficiency, Durability, Emission. He explained the parts of clutch plates and its parts very well. He also gave examples and case studies from his vast experience. He has also answered the question asked in between in the lecture in clarity.

Mr. M. Khader Basha delivered a vote of thanks. He thanked all the participants for taking part in the lecture organized by Chennai Division. He also thanked the speaker for his wonderful lecture.

Mr. Bahsa requested Mr. Govindarajan, Senior Member of SAEISS to present the memento to the speaker.
SAEISS conducted the Toptech program on “Automatic Transmission” in 27th & 28th October 2017 at Chennai. The Speakers for the program are Mr. M. Khader Basha, Mr. M. Ramesh Kumar, Mr. S. Mathi, Mr. Neeraj Kumar Surana & Mr. Pramod Kumar Varanasi all are from CVRDE, Avadi, Chennai.

Mr. Aiyappan Ramamoorthy, MC Member, SAEISS inaugurated the two days session of the program. He welcomed all the participants and introduced the speakers to the participants. Then he handed over the session to Mr. Khader Basha for his lecture. Mr. Khader Basha thanked Mr. Aiyappan Ramamoorthy and started the session with the basics of the Automatic Transmission Systems. He explained the function and requirements for the Automatic Transmission. Mr. Pramod Kumar Varanasi took the session after the morning tea break. He elaborated the working of the Drivetrain and Design of the Automatic Transmission systems.

Mr. Pramod Kumar continued the session after lunch explaining the Hydrodynamic System for Automotive Vehicles. Mr. Neeraj Kumar Surana, took the next session after afternoon tea break. He explained the Vehicle Performance which is running through the Automatic Transmission.

On the 2nd day Mr. M. Ramesh Kumar took the morning session and explained the Selection of Gear Ratios of Transmission and the Performance of Automatic Transmission systems. He also explained the participants about the Planetary Gearbox & Design and Application of High Contact Ratio (HCR) gears. After the lunch break Mr. S. Mathi, explained about the Hydraulic Systems and its Design for Automatic Transmission systems. Mr. Basha thanked all the participants and distributed the certificates to them. He also presented the mementos to the speakers and thanked them for their valuable knowledge sharing sessions.

Student Knowledge Improvement Program (SKIP) program on the topic “STEERING SYSTEMS & VEHICLE HANDLING” was organised by SAEISS on 03rd and 4th November 2017 at MLR Institute of Technology, Hyderabad.

The program was inaugurated by Mr. T. V. Shiva Rao, Director, T & AS Design Tech. Services Pvt. Ltd, Hyderabad together with Mr. S.Radhakrishnan, Retired VP, Rane Steering Systems; Sri. Marri Laxman Reddy, Chairman, MLR Institutions; Sri. Marri Rajashekar Reddy, Secretary, MLR Institutions; Dr. P. Bhaskara Reddy, Director and Principal, MLR Institutions; Dr. S. Madhu, HOD, Mech. Engg.,MLR Institutions and Dr. M.S.N. Guptha, HOD, Aero. Engg., MLR Institutions. Apart from them Dr. S. Karthikayan, SAEISS MC Member & Professor, MLR Institutions; Faculty advisors Mr. B. Subramanyam and Mr. P. Bridjesh were also present during the function.

Mr. S. Radhakrishnan distributed the certificates to the participants and presented memento to the host institution. Dr. S. Madhu, felicitated the speaker with the memento as the token of appreciation.
SAEINDIA COLLEGIATE & KRT CLUBS - INAUGURAL:

Sree Buddha Collegiate club and KRT club was inaugurated on 11th November 2017 in association with SAEISS Cochin division and Department of Mechanical Engineering, Sree Buddha College of Engineering (SBCE), Pattoor, Alappuzha, Kerala.

The function was presided over by Shri.K.K.Sivadasan, Treasurer, Sree Buddha College of Engineering. The welcome address was given by Prof. Anilkumar A V, HOD, Department of Mechanical Engineering. Dr. Sreejith Mohan, Senior faculty advisor presented a report on the clubs.

Shri.B.Srinivasan, General Manager, R&D, UCAL fuel systems inaugurated the collegiate club and discussed about the pollutants present in the exhaust gas of two wheelers and the emission norms. Among that one reflecting point come out is the induction of Bharat Stage - VI (BS VI) engines in India by 2020.

Dr.E.Rajasekar, Secretary, SAEISS inaugurated the KRT club and discussed about the importance of Green fuels such as Electricity, Ethanol, Methanol, Natural Gas and Hydrogen. He implied that complete replacement of IC engine is not possible and only we can do some changes in possible areas.

Dr. Suresh Babu, Principal, SBCE, made a keynote address. Dr. P. Navaneethakrishnan, Chairman, SAEISS Erode division and Professor, Kongu Engineering College; Prof. Francis Augustine, Chairman, SAEISS Cochin Division and Prof. Vaisakh.Y, Co faculty advisor felicitated the function. Student chairman Christy Reenu proposed the vote of thanks.

LECTURE MEETING – COCHIN DIVISION:

SAEISS Cochin Division conducted the lecture program on the topic “TWO WHEELER EMISSION STANDARDS & EMISSION CONTROL” by Shri.B.Srinivasan, General Manager, R&D, UCAL fuel systems. He started with discussing pollutants causes pollution and how it can be reduced to a lowest level using technology. He has gone through the various aspects related to emission such as pollutants from vehicles, level of each pollutant in various operating conditions, procedure to measure emission and the methods of control, calibration of engines etc.

Among that one reflecting point come out is the induction of Bharat Stage - VI (BS VI) engines in India by 2020. The most important problem we are facing nowadays is the pollution from vehicles due to emission of various gases such as CO, HC and NOx. So in order to reduce the emissions, automotive sector must focus on making engines with less pollutants. For that, research and experimentations are now going live to reach the task of making BSVI in 2020 as per the government’s initiative.

Besides the above Shri.B. Srinivasan mentioned the challenges and requirements to achieve this task. He concluded that BSVI is a best solution to control emissions from vehicles because it produces only 1 kg/km of CO, 0.10 kg/km of Hydrocarbons, 0.06 NOx and .068 of NMHC rather than 1.403 kg/km of CO, 0.79 Hydrocarbon, 0.39 NOx in BSIV.
SAE TREK & KRT TREK:

SAEISS Cochin Division conducted KRT & SAE Student TREK on 11th & 12th November 2017 at Adishankara Institute of Engineering Technology, Kalady. Mr. Jaget Babu, Dean, Acadamics and Mr. Eldose K.K, HOD, Mech. Engg., both of the host college welcomed the dignitaries and the participants for the SAEISS Trek program.

Mr. D. Balaji, R, Champion SAEISS thanked Adishankara Institute of Engineering Technology, kalady, for hosting the SAE KRT& SAE STUDENT TREK program in their organization Mr. D. Balaji Renault Nissan Technology Business Center India, Chennai and Champion SAEISS presented the memento to Mr. Babu a token of appreciation for hosting the event.

Mr. D. Balaji conducted the Engineering Design Process for KRT trek participants. Every participants of trek enjoyed and learned the engineering concepts by building a jet toy. In the process of design a jet toy they build a toy, tested its performance, measured its accuracy and speed it can travel with different nozzles and different weight loads.

On 12th November 2017 all the participants started to Trek on morning from the hosting college and reached the Athirapally Falls, Kerala. After having the breakfast between the natures and started the SAE KRT Trek.

Dr. E. Rajasekar, IRTT and Secretary SAEISS shared his experience in the SAE KRT Trek and thanked all the participants for their involvement and enthusiasm they had for the past 2 days. He also thanked the host college for hosting the event and conducting it in such a wonderful manner. The event ended by with the process of issuing certificates to the participants and finally a group photo was also taken on the trek location.

LECTURE MEETING – COCHIN DIVISION:

SAEISS Cochin Division conducted the lecture program on the topic “THE CHALLENGES IN AUTOMOTIVE ENGINEERING” by Dr. E. Rajasekar, IRTT and Secretary SAEISS. He started with the usage of fossil fuels and its future availability, need of replacing fossil fuels etc. The consumption of fossil fuels in near future will be a major challenge because the sources are reducing day by day because more number of vehicles are touching the road for luxury as well as for human comfort.

Advanced material technology, engine technology is necessary to come up with green fuels such as Electricity, Ethanol, Methanol, Natural gas and Hydrogen. Comparing each fuel and its efficiency only Hydrogen (67.7% efficient) can give a best solution to replace petroleum fuels (83.3%).

Hydrogen gas is non-polluting, renewable and cheaper in near future but its storage and low power production is a big challenge to achieve. Hybrid and electrical vehicles can meet this challenge to a great extent. While in case of hydrogen its zero emissive compared to hybrid fuel. Electric vehicle is a good option but replacement of battery is a big trouble due to high cost.

Hydrogen is the most preferable one among this due to its intended properties but its engine must be larger than IC engines to reach the same power production. So many manufacturers have made hydrogen based vehicles but it will become complicated to handle if any leak of the gas occurs.

Dr. S. Rajasekar implied that complete replacement of IC engine is not possible and only we can do some changes in possible areas. If the difficulties with respect to Hydrogen gas are met the world will get cleaner air.
SAEISS conducted the Toptech program on the topic “Application of Design of Experiments” on 17th & 18th November 2017 at SAEISS Office, Guindy. Mr. S. Selvamani, Product development process and Design to Cost Consultant, was the speaker for the session.

Mr. S. Selvamani started the first session on Design of Experiments. He gave the introduction of Design of Experiments for industrial applications. He then explained the participants the variability and experimentation of Application of Design of Experiments (DOE). Mr. S. Selvamani also explained about the experiment on DOE. He also explained the participants how to take the readings. Participants showed their involvement in the experiment and took the reading.

Dr. E. Rajasekar, Secretary, SAEISS handled the valedictory function. He also presented the certificates to the participants with Dr. R. Rajendran, MC Member, SAEISS and thanked them for their involvement in the program. Dr. E. Rajasekar also thanked Mr. S. Selvamani for conducting the program. He felicitated the speaker with the memento as the token of gratitude. Dr. E. Rajasekar, Dr. R. Rajendran and Mr. S. Selvamani took a group photo with the participants.

SAEISS organized the International President Meet and T.R. Sathyanarayanan Memorial Lecture on 7th December 2017 at Hotel Ramada Plaza, Guindy. Mr. S. Sriraman, Chairman SAEISS welcomed Mr. Doug Patton, SAE International President and Mr. Murali Iyer, Global Executive Advisor, SAE International. Mr. S. Sriraman along with Mr. Doug Patton presented the Lifetime Achievement Award to Dr. G. Padmanabham, Dr. P. SivaKumar, Dr. A. Ramesh, Dr. V.M. Periasamy, Dr. Sivanandi Rajadurai, Dr. D.A. Subramani, Dr. V. Ganesan and Mr. S. Govindarajan in appreciation of their leadership and extraordinary contributions to the society. They also presented the Automotive Champions of Chennai awards to Dr. N. Saravanan, Mr. R. Velusamy and Mr. B. Viswanath for their leadership & contributions to the society.

Champions of SAEISS presented their activities to the dignitaries followed by the presentations shared by all the divisional chairmen. Mr. T. Kasiraja, Treasurer SAEISS gave the inaugural address for the Lecture by briefing the achievements of Mr. T.R. Sathyaranarayanan as MC Member of SAEISS. He welcomed Mr. Doug Patton, SAE International President for his lecture on “Challenges in Cyber Security”.

Mr. Patton started his lecture with small potato chip and explained how the Cyber Security affected the sales of potato because of Cyber-attack. He then explained about the Cyber Security and its implication in automotive industries. He also gave an example how a car was hacked in middle of the highway and was made to switch off engine through online.

Mr. S. Sriraman, presented a gift to Mr. Patton and Mr. Murali Iyer as the token of gratitude. Mr. T.S. Soundara Rajan son of beloved T.R. Sathyaranarayanan proposed a vote of thanks and thanked Mr. Patton for his lecture. He also thanked all the participants and invited all for the dinner.
SAEINDIA Section News - Southern (SAEISS)

TOPTECH PROGRAM:

SAEISS conducted the Toptech program on the topic “Automotive Suspension System” on 15th & 16th December 2017 at Hotel Ambica Empire, Chennai. Mr. B. Balaji, Retired General Manager, Ashok Leyland, was the speaker for the session.

Mr. S. Shanmugam, Vice Chairman, SAEISS took the inaugural session of the 2 days toptech program. He welcomed all the participants and introduced the speaker to the participants. He thanked Mr. B. Balaji for accepting to handle the toptech program and sharing his knowledge to the participants. He also welcomed Mr. B. Balaji for his lecture.

Mr. B. Balaji thanked Mr. S. Shanmugam for his introduction and started the session with the basics, then he explained the function and requirements of the Automotive Suspension Systems for the vehicle for smooth ride. He explained suspension system in the old vehicles and how they improved in modern vehicles. He explained how the leaf springs and spiral springs are helping the passenger travel with comfort. He also explained Leaf spring suspension and Tandem Axles Suspension for the vehicle and their advantages in the vehicle.

On the 2nd day he gave the lecture on Dampers, Air Suspension, Virtual Analysis, Ride Comfort and Vehicle Handling. He also clarified the questions raised by the participants in middle of the session.

Mr. M. Khader Basha, MC Member, SAEISS handled the valedictory function. He thanked Mr. B. Balaji for sharing his knowledge with the participants. Mr. M. Khader Basha and Mr. B. Balaji distributed the certificates to the participants. He issued memento as the token of gratitude to Mr. B. Balaji.

SAEINDIA Section News - Bengaluru (SAEIBS)

TECH TALK:

SAEIBS conducted the Tech talk program on the topic “How Engine smart are you?” on 4th October 2017 at University of Vishveshwarya College of Engineering, Bengaluru. Mr. Anoop B. Srinivasan, Manager, N I T F School of PG Studies and MC Member, SAEIBS was the speaker for the session.

The talk covered all the basics about engines. Detailed explanation about all parts of engines was given. The speaker covered all the types of engine used for various purposes and their working along with terms like Power, torque, RPM etc. Mr.Anoop also covered fuel consumptions of various engines and detailed explanation on single cylinder engine, air cooled engine and liquid cooled engines. The session finally ended up with Q & A with the speaker by the participants.

COLLEGIATE CLUB - INAUGURAL:

SAEIBS with New Horizon College of Engineering inaugurated the SAEINDIA Collegiate Club at the college on 4th October 2017.
Mr. Munirathnam, Mr. K P Murthy, Mr. Rakesh, and Mr. Prashanth from SAEIBS attended the function. Dr. Manjunatha, Dr. Ganesha Prasad, and Dr. Prashanth C S R were the invited guests for the function. There were about 180 students and faculties were present for the event. They were briefed about the SAEINDIA collegiate club and the benefits of SAEINDIA membership. The event ended with question and answers session by the host college.

WORKSHOP:

SAEIBS and SAEINDIA Collegiate Club of K S Institute of Technology (KSIT), Bengaluru organized a 3 day workshop on “AUTOMOTIVE TECHNOLOGY” hosted by the college from 13th to 15th October 2017. About 187 students registered for the program.

During the inaugural function, Chief Guest Mr. K. P. Murthy, Vice chairman, SAEIBS spoke about the challenges to be taken by the students to enhance their knowledge. Dignitaries Mr. Devaraj and Mr. Sridhar V, motivated the participants to be passionate about automotive technology. Dr. T. V Govindaraju, Principal/Director, KSIT, emphasized on the need of such workshops for the benefit of students.

Mr. D. Rukmangada, Hon. Treasurer, Kammavari sangham, spoke about extensive supported by the management to organize the workshop. Dr. Ram Narasimha, Professor & Head released the schedule of the workshop the students. Mr. Devaraj Tuppad, M/s Continental Corporation, empathized the topic “Recent Automotive Technologies” for 90 min duration. The event also witnessed invitees from companies like CADDFocus and Continental along with Alumni members.

EGA HYBRID COMPETITION - VIRTUALS:

The virtual round of India’s first Two-Wheeler Hybrid competition for young student engineers Electrifying Green Aspirations (EGA) organised by SAEIBS in association with TVS Motors was conducted on 14th October 2017 at Institute of Quality and Leadership (IQL), TVS Motors, Bengaluru. About 19 teams were registered for the event from various colleges across Karnataka, Tamilnadu, and Madhya Pradesh.

The Chief Guest Mr. Jayram, Dean, IQL inaugurated the event and explained about benefits in participating the competition to the students in his welcome address. Mr. Damodaran Subramanian, MD, Safran Aerospace Engineering delivered the key note address on the future of mobility in the aerospace domain.

Experts from various companies like ASM technologies, General Motors Technical Center India, TVS Motor Company and Kaizenat constituted the jury panel. Each participant team presented their ideas to build the Two Wheeler Hybrid vehicle with recent advances in safety, efficiency and other challenges. Out of 19 teams 12 teams were selected for the final round which is proposed to be held in February 2018.

Mr. Vinay Harne, President, New Product Development, TVS Motor Company graced the valedictory function and interacted with students on future technologies like Hybrid, Electric Vehicles, Solar Energy and Fuel cells. Mr. Anoop B Srinivasan, Mr. Krishnan, Mr. K. P. Murthy, Mr. C Subramanian and Mr. Kannan of SAEIBS and team of Volunteers from TVS together with Mr. Rakesh D R, EGA Coordinator, Mr. Prashanth and Mr. Dhanush of SAEIBS office made the event more successful.
On 9th December 2017 SAEINDIA Bengaluru Section (SAEIBS) organised a seminar at Narayanamurthy Center of Excellence, Infosys, Mysuru. The seminar is composed of two sessions one by SAE International President Mr. Doug Patton and the second one by Dr. Ravi Kumar G.V.V. of Associate Vice President & Head, Advanced Engineering Group, Infosys.

Mr. Patton started his lecture on Cyber Security with the in depth explanation of the terminologies involved, its usages and what it is about. He also briefed about securing for future generation and gave detailed inputs on the world’s first automotive cybersecurity standard. He also presented some videos of hacking a car as an example of the cyber security systems.

Dr. Ravi Kumar gave a presentation on the Holistic approach on industrial security – an industry 4.0 journey. He Started with Industrial IOT by seeking the vision i.e. Instrumented, Integrated, Informed, Intelligent and what is happening. He also presented about the adoption of IoT with a fast-changing industrial landscape and what does all it mean with Industry 4.0 with a holistic approach for industrial security. Finally he concluded with a holistic security concept.

On 5th November 2017 SAEIBS conducted the A world in Motion (AWIM) Master Teacher Training Program (MTTP) at the plant premise of TVS Motors, Hosur.

Mr. Anoop B Srinivasan, AWIM Master trainer lead the program by giving training upon AWIM jet toy and skimmer to the teachers and Industry volunteers from various companies like TVS, General Electric, and Continental Automotive.

Teachers and volunteers enjoyed the session with lots of fun by learning AWIM program conducted for 5th and 6th grade School students. Mr. Kannan, MC Member, SAEIBS supported the event with Venue and other logistics arrangements. Over 20 teachers and volunteers were participated together with SAEIBS office staffs.

On 8th December 2017 after landing at Bengaluru, SAEINDIA Aero Board team along with SAE International President Mr. Doug Patton visited the Wipro Aerospace Division which is closer to the International airport of Bengaluru.
WORKSHOP:

The 2 Day Workshop on “Hybrid Fuel Cell Vehicles: Potential Power Source for the Future” was conducted at ARAI, Pune on 10th & 11th October 2017 jointly by ARAI with SAEIWS. Dr. P. Kartikeyan, PSG College of Technology, Coimbatore, was the speaker for this workshop. There were 32 participants for the workshop.

The topics covered under this workshop are follows:

- Fuel Cells and Applications in Transportation: Hybrid, Electric and Fuel Cell Vehicle Drives, Electro Mobility and Recent Developments in Battery Technology for Automotive Applications.

TIFAN - VIRTUALS:

On 5th November 2017 SAEINDIA Off-Highway Board, conducted virtual round of its unique competition named TIFAN (Technology Innovation Forum for Agricultural Nurturing) for engineering and agricultural engineering students at Pimpri Chinchwad College of Engineering and Research (PCCoE&R), Ravet, Pune.

Mr. Krishnat Patil, GM, John Deere India and Convener TIFAN welcomed all the distinguished dignitaries on stage and narrated the journey of TIFAN and its motivation towards engaging the talent from the country to the real life challenges of the agricultural sector. Dr. Kamal Vora, Sr. Dy. Director, ARAI & Chairman, SAEIWS shared SAEINDIA vision in developing talent and technology in mobility industry and Automotive Mission Plan 2026 of Indian Government.

The virtual round of competition was inaugurated by Dr. Pitam Chandra, Hon’ble Ex-Director, Central Institute of Agricultural Engineering (CIAE), Bhopal as Chief Guest and Dr. V. M. Mayande, Hon’ble Ex-Vice-Chancellor, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola as Guest of Honour. Dr. Chandra shared his thoughts on the ‘Role of young engineering in solving the challenges of agricultural sector’ during his speech. Dr. Mayande touched the base on the ‘India’s need of Agricultural mechanization and its current challenges’ in his speech.

Students from 28 colleges across India participated in the event. Most of the teams came up with new innovative designs for self-propelled onion harvester. The shortlisted colleges after this round will go for the final round where they have to demonstrate the physically build machines in the field. The final will be held at Mahatma Phule Krishi Vidyapeeth, Rahuri in the month of March 2018.
AWIM REGIONAL OLYMPICS - SOLAPUR:

On 11th November 2017 at Shri Siddheswar Montessori School, Solapur SAEIWS conducted Regional Olympics 2017 for Solapur Region. Over 80 students from nearly 10 schools across Solapur Region participated in the competition for both Jet-toy & Skimmer categories. The event was supported by industry volunteers from ARAI, John Deere & Eaton Technologies and over 10 student volunteers from the nearby colleges. The teams from Valentine Circle School, Solapur and Orchid School, Solapur won the 1st prize in the Jet-toy & Skimmer categories respectively.

AWIM REGIONAL OLYMPICS - KUTCH:

On 29th November 2017 at Shree Navchetan Andhjan Mandal School, Madhapar, Bhuj SAEIWS conducted Regional Olympics 2017 for Kutch Region. Over 48 students from nearly 6 schools across Kutch Region participated in the competition for both Jet-toy & Skimmer categories. The event was supported by industry volunteers from ARAI, John Deere & Eaton Technologies and over 6 student volunteers from the nearby colleges. The teams from Chanakya Academy, Bhuj and Army Public School, Bhuj won the 1st prize in the Jet-toy & Skimmer categories respectively.

AWIM REGIONAL OLYMPICS - AHMEDABAD:

On 25th November 2017 at the plant of Vestas Wind Technologies Pvt Ltd, Ahmedabad SAEIWS conducted Regional Olympics 2017 for Ahmedabad Region. Over 80 students from nearly 10 schools across Ahmedabad Region participated in the competition for both Jet-toy & Skimmer categories. The teams from Nandej Primary School No. 1, Ahmedabad and Best Primary School, Ahmedabad won the 1st prize in the Jet-toy & Skimmer categories respectively.

AWIM REGIONAL OLYMPICS - PUNE:

On 17th December 2017 at SNBP International School, Pune SAEIWS conducted Regional Olympics 2017 for the Pune Region. Over 200 students from nearly 16 schools across Pune Region participated in the competition for both Jet-toy & Skimmer categories. The event was supported by industry volunteers and 150 student volunteers. The teams from Mother Theresa High School, Kharadi won the 1st prize in both the Jet-toy & Skimmer categories.
AWIM REGIONAL OLYMPICS - KOLHAPUR:

On 19th December 2017 at KIT’s College of Engineering, Kolhapur SAEIWS conducted Regional Olympics 2017 for Kolhapur Region. Over 80 students from nearly 10 schools across Kolhapur Region participated in the competition for both Jet-toy & Skimmer categories. The event was supported by industry volunteers from IFM Electronics, ARAI, John Deere & Eaton Technologies and over 15 student volunteers from the nearby colleges. The teams from SGI Residential School, Kolhapur and New Model English School, Kolhapur won the 1st prize in the Jet-toy & Skimmer categories respectively.

INTERACTION WITH AWIM PARTICIPANTS:

On 12th December 2017 SAE International President, Mr. Doug Patton visited S N B P International School, Pune to interact with AWIM Participants, Volunteers and Teachers where he & Mr. Murli Iyer were given a traditional Welcome at the school. Both were then escorted to Amphitheatre for Vedic Chants performed by the school children followed by Demo on AWIM Jet-Toy with their theme presentation. Mr. Patton & Mr. Iyer also addressed school children, and wished them well for future endeavour.

EMINENT LECTURE:

The Eminent Speaker Series Lecture on “Future of IC Engines and Liquid Transport Fuels” was organized on 12th December 2017 at ARAI, Pune, which witnessed participation from engineers, scholars, students and faculty in the discipline of engineering of about 60 participants. The speaker for the lecture was Mr. Doug Patton, President of SAE International and Executive VP & CTO, DENSO International America, Inc.

The highlights of the lecture are as,

- Discussion on the Future improvements of Mechanical Engineering field.
- Impact of Electric Vehicle Technology improvements in field of Mechanical Engineering.
- Merits and demerits of Electric Vehicles over IC Engines and Liquid Fuel based Vehicles.
- Scope to improve the IC Engines and Liquid Fuel based Vehicles.
- Hybrid Vehicles
- IC Engine usage trends in different market segments
- Comparison of IC Engine, Hybrid Vehicle and Electric Vehicles
- Next Generation Variable Compression systems.

Mrs. Rashmi Urdhwareshe, Director, ARAI & Vice President and Chair Membership Board of SAEINDIA felicitated Mr. Patton with a memento as a token of appreciation. Mr. Narahari P. Wagh, Secretary, SAEIWS proposed the vote of thanks for the event.
SAEINDIA Section News - Northern (SAEINS)

AWIM REGIONAL OLYMPICS - NEW DELHI:

On 24th October 2017 at Mapple Emerald Hotel, New Delhi SAEINS conducted Regional Olympics 2017 for Delhi Region. Over 200 students from 23 schools across Delhi participated in the competition for both Jet-toy & Skimmer categories. The event was supported by industry volunteers from Maruti Suzuki India Ltd. and over 80 student volunteers from the nearby colleges. The teams from Tagore International School, Vasant Vihar won the 1st prize in both the Jet-toy & Skimmer categories.

AWIM REGIONAL OLYMPICS - NCR:

On 25th October 2017 at Mapple Emerald Hotel, New Delhi SAEINS conducted Regional Olympics 2017 for NCR Region. Over 150 students from nearly 15 schools across NCR Region participated in the competition for both Jet-toy & Skimmer categories. The event was supported by industry volunteers and 40 student volunteers. The teams from Presidium School, Sector 57, Gurugram and Delhi Public School, DLF City, Gurugram won the 1st prize in the Jet-toy & Skimmer categories respectively.

AWIM REGIONAL OLYMPICS - HARYANA:

On 18th November 2017 at Jai Parkash Mukand Lal Innovative Engg., & Tech. Institute, Yamuna Nagar SAEINS conducted Regional Olympics 2017 for Haryana Region. Over 200 students from nearly 25 schools across Haryana Region participated for both Jet-toy & Skimmer categories. The event was supported by industry volunteers and 60 student volunteers. The teams from Delhi Public School, Kurukshetra and Mukand Lal Public School, Yamunanagar won the 1st prize in the Jet-toy & Skimmer categories respectively.

EFFICYCLE 2017:

The 17th Edition of Efficycle event was successfully conducted held from 1st to 5th of November 2017 at Lovely Professional University (LPU), Punjab. The event was organized by SAEINDIA Northern Section (SAEINS) in association with Maruti Suzuki (MSIL) and International Centre for Automotive Technology (ICAT). The event was held under the convenorship of Mr. U.D.Bhangale, Sr. GM, ICAT supported by Co-Conveners Mr. Jitendra Malhotra, DGM, MSIL and Dr. Reji Mathai, Chief Research Manager, IOCL R&D.
Teams had designed and fabricated the energy efficient human powered three wheeled electric hybrid vehicle which was driven by two drivers simultaneously using human drive along with electric drive having maximum motor output power of 400W. About 80 teams participated this year and the theme for this year was “Drive Excellence Season”. Teams appeared for the Technical Inspection (TI) of their vehicles which includes Safety Check, Brake Test, Figure 8 test and Electric inspection. They also went through the static events like Weight Check, Design Evaluation, Cost Evaluation, Build Quality Evaluation, Innovation Round and Marketing Presentation Round where the teams were judged by the experts from Automotive Industries.

Teams who cleared the Technical Inspection were allowed for the Dynamic Events like Acceleration Test, Gradient Simulation Test and Drive Excellence Test and the teams finishing the individual dynamic event in least time were winners of individual dynamic events. On the final day the teams who cleared the technical inspection were allowed to participate in 1.5 hours of Endurance Race on 2 Km track having sharp turns and other difficulties and it is followed by the Valedictory Ceremony and various awards to the teams & individuals.

- Overall Winner - Team Velociracers - College of Engg., Pune.
- 1st Runner up - Team Zyklus - Galgotia’s College of Engg. & Tech., Gr.Noida and

Dr. R.K. Malhotra, DG, FIPI and President, SAEINDIA delivered the Inaugural address highlighting the present domination of fossil fuels in global and India’s energy mix and that this trend will continue in future. He mentioned that though the share of renewables is expected to increase in the energy mix as reported by various global energy agencies, still it will not be able to displace major share of fossil fuels from the energy mix. As per projections the demand for oil in India is expected to more than double by 2035, primarily driven by transportation and petrochemicals sectors.

The inaugural address was followed by a panel discussion on the given topic. The panelists were - Dr. Teich Christian, VP – Bosch; Dr. SSV Ramakumar, Director (R&D), IOCL; Mr. Vikram Gulati, Country Head & VP (External Affairs),Toyota Kirloskar Motors; Mr. Ashok Taneja, MD & CEO,Shriram Pistons & Rings and Mr. Harjeet Singh, Executive Advisor-Tech, Hero Moto Corp. Mr. Deepangshu Dev Sarmah, Editor-in-Chief, Auto Tech Review was the moderator of the session. The panel discussion was followed by a question answer session, where panellists addressed questions from the audience.

Post the panel discussion, Mr. Doug Patton, President - SAE International and Executive Vice President & Chief Technology Officer - DENSO International America was invited to present on “The IC Engine – Is it dead again”. In his Presentation Mr. Patton highlighted the globally changing scenario in the field of mobility, with a push towards electrification of mobility. The highlights of his presentation are,

- Passenger car applications for electrified vehicles will increase with limitations.
- Plugin Hybrid Electric Vehicles will play a major role in electrification.
- On highways, light, medium and heavy duty applications will remain primarily on diesel.
- Agriculture and construction equipment will remain on diesel and
- IC Engines will continue to survive.

The program was concluded by closing remarks from Mr. C V Raman, Sr.ED (Engg.),Maruti Suzuki India Limited & Chairman SAEINS who stated that it is essential to have a long term plan which should be well thought for any disruption. The vision of the country for controlling emissions and transitioning to e-mobility is commendable. Various technologies should be looked at for achieving the ultimate objective of carbon dioxide reduction. Mr. Raman thanked the organizers, presenters and panellists for the insightful program and the discussions that emerged during the session.
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