

# SAEINDIA

SOUTHERN SECTION

6<sup>th</sup> NATIONAL  
CONFERENCE  
on

# AUTOMOTIVE INFOTRONICS

Towards Intelligent, Connected and Green vehicles

17-18 DECEMBER 2010  
ANNA UNIVERSITY, CHENNAI

## EVENT SCHEDULE



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SAEINDIA Southern Section,  
No 25, Gandhi Mandapam Road, Kotturpuram, Chennai - 600 025  
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## Toptech Program 1:

Date : 15/12/2010 and 16/12/2010 (Wednesday & Thursday)  
 Venue : Hall of Guinness, Anna University, Guindy, Chennai-600 025.  
 Topic : Diesel Engine and After-treatment Controls – Today's  
 Technology and Future Trends  
 Faculties : Dr. Anupam Gangopadhyay from Automotive Infotonics  
 Dr. Uwe Lingener & Mr. S. Thalavai Venkatesan from  
 Continental  
 Time : 8.45 a.m. to 5.30 p.m.

Day 1: (Dec 15th 2010)	
Morning	Diesel engine and After-treatment Control – Big Picture
	Engine torque management and fuel system controls
Afternoon	Diesel after-treatment concepts and controls
	Practical training on Vehicle – EMS Techniques
Day 2: (Dec 16th 2010)	
Morning	FIE / EMS Technologies and trends for future Emission Norms
Afternoon	On Board Diagnostics – A Primer
	OBD1 Demo on Vehicle by fault creation

## Toptech Program 2:

Date : 15/12/2010 and 16/12/2010 (Wednesday & Thursday)  
 Venue : Henry Maudslay Hall, Anna University, Guindy, Chennai-600 025.  
 Topic : Towards Sustainable and Connected Mobility  
 Faculties : Mr. Gururaj Bengeri, Mr. Avik Gupta,  
 Mr. Shivakumar Chanal and Mr. Prasanna Deshpande  
 from SIEMENS  
 Time : 8.45 a.m. to 5.30 p.m.

Day 1: (Dec 15th 2010)	
Morning	Mechatronics solution for Automotive
	Systems Driven product development (design, development & validation)
	Requirements capture, engineering & management
	Supplier/partner management
Afternoon: A workshop on ECAD integration with MCAD	From schematics to the actual harness design
	PCB Design & Exchanging from ECAD to MCAD
	Validating cooling characteristics of electronic systems
Day 2: (Dec 16th 2010)	
Morning / Afternoon	Hybrid Drive System for CV's
	Hybrid Concepts
	Hybrid Drive System Topologies
	Current Technology & Future trends
	Special Applications
	Current Usage References

Date : 17/12/2010  
Venue : Vivekananda Auditorium, Anna University, Guindy,  
Chennai – 25.

	Time
Registration	09:00 am - 09.30 am
Inaugural Ceremony	09:30 am – 11:00 am
Chief Guest - Dr. Andrew Brown, SAE International President	
Prayer	09:30 AM
Lighting of Kuthuvilakku	09:35 AM
Welcome Address by SAEINDIA President (Mr. R. Dayal)	09:35 AM - 9.45 AM
AI Conference theme by Dr. Arunkumar M. Sampath	09:45 AM - 9.50 AM
Presidential Address by V.C. Anna University (Dr. P. Mannar Jawahar)	09:50 AM - 10.00 AM
Address by Chief Guest (Dr. Andrew Brown)	10:00 am – 10:15 am
Address by CEO SAE International (Dr. David Schutt)	10:15 am – 10:30 am
Vote of Thanks by SAEISS Chairman	10:30 am – 10:35 am
Inauguration of Conference Stalls	10:35 am – 10:50 am
Tea Break	10:50 am – 11:00 am
Plenary Session	
Dr. Andrew Brown, SAE International	11:00 am – 11:45 am
Dr. Michael Joerg Ruf, Continental	11:45 am – 12:30 pm
Lunch	12:30 pm – 01:30 pm

## SESSION 1: Embedded Systems in Automotive Fields

Session Chair : Dr. Vanaja Ranjan, Anna University  
Keynote Speaker : Mr. Vishwas M. Vaidya, Tata Motors  
Time : 1:30pm - 3:30pm  
Venue : Henry Maudslay Hall, Anna University, Guindy,  
Chennai – 25.  
Date : Friday, 17th December 2010

### 1. Embedded Systems in Automotive Field: Recent Trends (SAE INDIA 1001001)

Authors : Mr. Gajanan S Bhatarkar & Mr. Dileep Cheni  
Organization : Eaton Corporation

### 2. Controller area network: Formal specification and verification using TLA+ (SAE INDIA 1001002)

Authors : Mr. Jayaraj Poroor, Mr. Varrun Ramani &  
Mr. Avinash Joshi  
Organization : Amrita University, Kerala

### 3. Design Challenges of embedded electronics in Automotive systems (SAE INDIA 1001003)

Author : Mr. A.R. Sudip Simha  
Organization : Freescale India

## SESSION 2 : Advanced Driver Assistance Systems

Session Chair : Mr. Jayaram Krishnan, Ashok Leyland  
Keynote Speaker : Mr. Jayendra Parikh, Ashok Leyland  
Time : 1:30 pm - 3:30 pm

Venue : Hall of Guinness, Anna University, Guindy,  
Chennai – 25.

Date : Friday, 17th December 2010

1. Advanced Driver Assistance Systems: Recent trends and challenges (SAE INDIA 1001004)

Author : Mr. Kannan Elumalai  
Organization : Visteon India

2. Driver Status Monitoring System (SAE INDIA 1001005)

Authors : Mr. Sanjyot Gindi & Ms. Smita Nair  
Organization : KPIT Cummins

3. Driver Assistance Systems for Offroad Vehicles (SAE INDIA 1001006)

Authors : Mr. Aniket Bhattacharya & Mr. B Karthikeyan  
Organization : John Deere

## SESSION 3 : Electronics In Two And Three Wheelers

Session Chair : Dr. V. Ganesan, IIT Chennai  
Keynote Speaker : Dr. S.J. Dhinagar, TVS Motors  
Time : 4:00 pm - 6:00 pm

Venue : Henry Maudslay Hall, Anna University, Guindy,  
Chennai – 25.

Date : Friday, 17th December 2010

1. Electronic Engine Management System for 2&3 Wheelers  
– Where are we today? (SAE INDIA 1001007)

Authors : Mr. M.Murugan, Mr. B.Srinivasan &  
Mr. S.Govindarajan

Organization : UCAL Fuel Systems Limited

2. Entry-Level Automotive Powertrain Solutions for Emerging  
Markets and Emissions Reduction (SAE INDIA 1001008)

Authors : Mr. Mike Garrard & Mr. Anoop Aggarwal

Organization : Freescale India

3. A Paper on challenges faced in implementation of  
Compact Music system in two-wheeler  
(SAE INDIA 1001009)

Authors : Dr. S.J. Dhinagar, Mr. A. Sivakumar &  
Mr. M. Nagendrasamy

Organization : TVS Motors

## SESSION 4 : Automotive Simulation Modeling

Session Chair : Dr. K. Srinivasan, Anna University  
Keynote Speaker : Mr. Prashant Rao, Mathworks  
Time : 4:00 pm - 6:00 pm

Venue : Hall of Guinness, Anna University, Guindy,  
Chennai – 25.

Date : Friday, 17th December 2010

### 1. Multi Objective Optimization of common rail system components (SAE INDIA 1001010)

Authors : Dr. Anatoliy Lyubar, Dr. Jonos Kerekgyasto,  
Dr. Klaus Kitzinges, Mr. Ananda Reddy,  
Mr. Srinivas Reddy, Mr. Thalavai Venkatesan &  
Mr. Anatoliy

Organization : Continental Automotive

### 2. Advantages of Battery Energy Management in Start-Stop Vehicles (SAE INDIA 1001011)

Authors : Mr. Saminathan Venkatasubramainan &  
Mr. Breton Mathew

Organization : Visteon

### 3. Electrical and Electronics Simulation for Hybrid / Electric Vehicle (SAE INDIA 1001012)

Authors : Mr. Gaurav Hada & Mr. Ashish Deshpande

Organization : ANSYS, India

Date : 18/12/2010  
Venue : Henry Maudslay Hall, Anna University, Guindy,  
Chennai – 25.

Plenary Session

Address by Cuneyt L. Oge, PRTM Corporation	09:00 am – 09:45 am
Address by Mr. Doug Neil, MSC Software	09:45 am – 10:30 am
Tea Break	10:30 am – 10:45 am

## SESSION 5 : In-Vehicle Networks

Session Chair : Mr. Seshadri Shekar, AIPL  
Keynote Speaker : Mr. A. Srinivas, Mahindra & Mahindra  
Time : 10:45 am - 12:45 am

Venue : Henry Maudslay Hall, Anna University, Guindy,  
Chennai – 25.

Date : Saturday, 18th December 2010

1. Strategic Analysis on Indian In-vehicle Networking Technologies and Protocols (SAE INDIA 1002001)

Authors : Mr. Arun S Nair & Mr. Sai Raghavendra Kumar  
Organization : KPIT Cummins

2. Vehicle Networks with Wide Area Network Services (SAE INDIA 1002002)

Authors : Mr. Mark Zachos and Mr. S. Prasad  
Organization : DG Technologies

3. (SAE INDIA 1002003)

Authors :  
Organization :

## SESSION 6 : Power train Controls

Session Chair : Mr. S. Govindarajan, UCAL Fuel Systems  
Keynote Speaker : Dr. Anupam Gangopadhyay, AIPL  
Time : 10:45 am - 12:45 am  
Venue : Hall of Guinness, Anna University, Guindy,  
Chennai – 25.  
Date : Saturday, 18th December 2010

1. Role of Electronic Throttle Control in the Automotive Engine management system (SAE INDIA 1002004)

Authors : Mr. S. Govindarajan, Mr. J. Suresh Kumar &  
Mr. R. Sridhar  
Organization : UCAL Fuel Systems

2. Air and Fuel Injection Control Strategies on Diesel Engine Management strategies (SAE INDIA 1002005)

Authors : Mr. Prashanth Rao, Mr. Deepak Shanbhag &  
Mr. Thalavai Venkatesan  
Organization : Continental Automotive

3. Control of Regulated Emissions under Idling conditions by Intelligent Cylinder Deactivation of a 4-stroke Multiple-Cylinder S.I. Engine (SAE INDIA 1002006)

Authors : Mr. R. Sanjeev Bhushan & Dr. G. Nagarajan  
Organization : Anna University

## SESSION 7 : Electric/Hybrid Vehicles

Session Chair : Dr. Arun Jaura, Eaton Corporation  
Keynote Speaker : Dr. Rao Chalasani, General Motors India  
Time : 1:45 pm - 3:45 pm  
Venue : Henry Maudslay Hall, Anna University, Guindy,  
Chennai – 25.  
Date : Saturday, 18th December 2010

1. Modeling of Thermal Management for Hybrid Electric Vehicle for Low Temperature Cooling Circuit (SAE INDIA 1002007)

Authors : Mr. Nabal K Pandey, Mr. Satish Thimmalapura &  
Mr. C. Nandagopalan  
Organization : Mahindra & Mahindra

2. TBD (SAE INDIA 1002008)

Author : Mr. Srinath Narayan  
Organization : Siemens India

3. Auxiliary Pressure on Demand Drive for Automatic Transmission in Hybrid Applications (SAE INDIA 1002009)

Authors : Mr. Allu Simhachalam & Mr. Satish Thimmalapura  
Organization : Mahindra & Mahindra

## SESSION 8 : PLM & CAD/CAE Applications

Session Chair : Dr. C. Jebaraj, Anna University  
 Keynote Speaker : Mr. Madhusudhan Varadaraj, Siemens  
 Time : 1:45 pm - 3:45 pm  
 Venue : Hall of Guinness, Anna University, Guindy,  
 Chennai – 25.  
 Date : Saturday, 18th December 2010

### 1. Unique Envelope Generation Method In The 3D Software (SAE INDIA 1002010)

Authors : Mr. Mandar Hajare, Mr. Sachin Mahajan,  
 Mr. Tushar Gadhawe, Mr. Yuraj Patil &  
 Mr. Prasad Tejpratap

Organization : Tata Motors

### 2. Cooling System Optimization Of An Enclosed Air-cooled Engine (SAE INDIA 1002011)

Authors : Mr. Anirudh Reddy, Mr. Om Prakash Singh,  
 Mr. Bhavesh Sharma & Mr. M. Kannan

Organization : TVS Motors

### 3. Multiple Model Optimization of Automotive System using MD NASTRAN (SAE INDIA 1002012)

Authors : Dr. Nidur Singh, Dr. N Swaminathan,  
 Dr. Xiaoming Yu & Dr. Erwin Johnson

Organization : MSC Software Corporation

Tea Break 03:45 pm – 04:00 pm

Valedictory Function 04:00 pm – 05:30 pm

Chief Guest - Dr. V. Sumantran, Executive Vice Chairman, Hinduja  
 Automotive

Guest of Honor - Mr. S.R. Marathe, Director ARAI

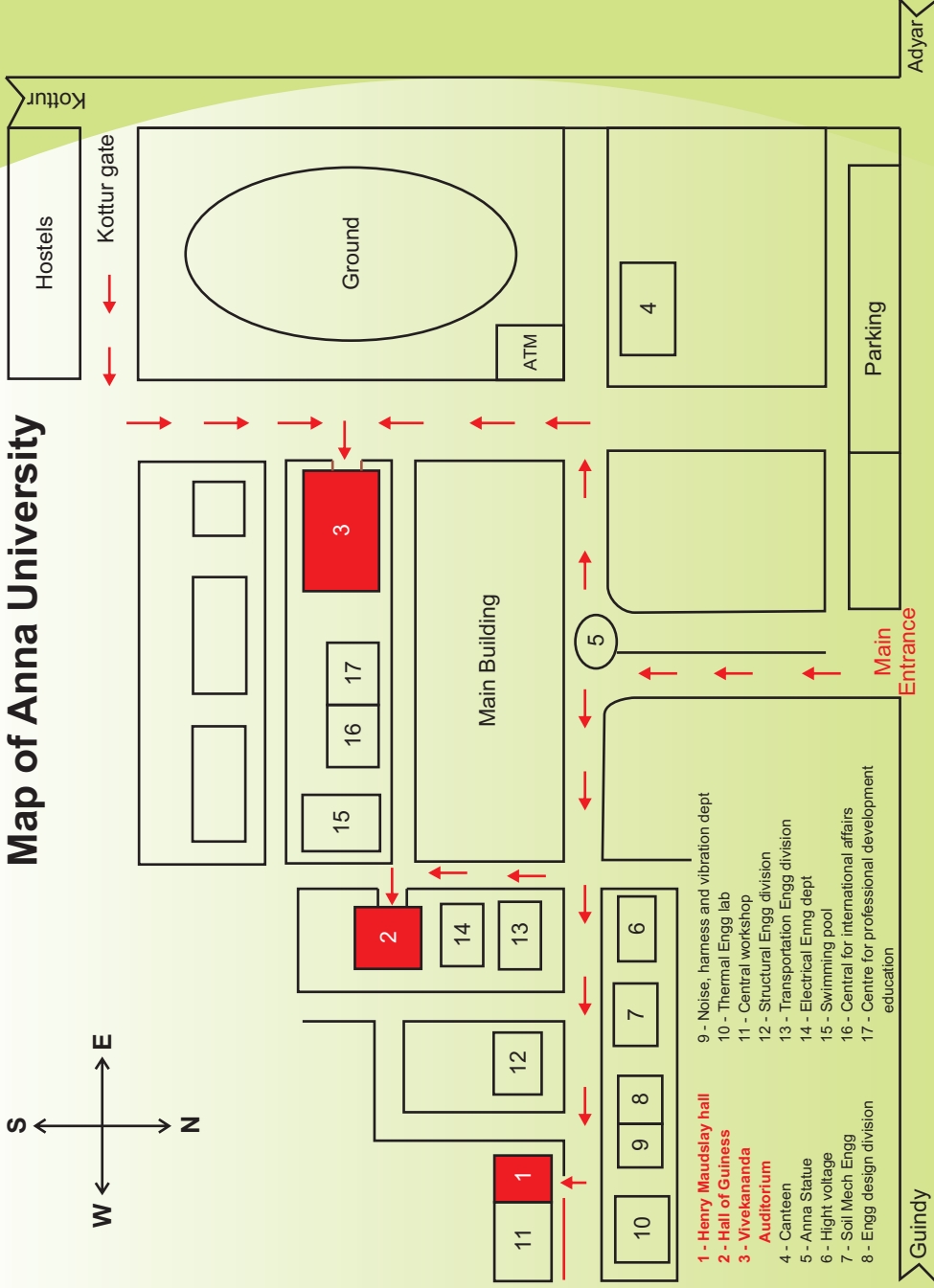
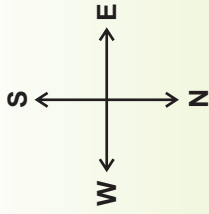
Welcome the Guests by SAEISS Chairman 04:00 pm – 04:05 pm

Address by Chief Guest 04:05 pm – 04:35 pm

Address by Guest of Honor 04:35 pm – 05:05 pm

Vote of Thanks by Conference Chairman 05:05 pm – 05:15 pm

# Map of Anna University



- 1 - Henry Maudslay hall
- 2 - Hall of Guinness
- 3 - Vivekananda Auditorium
- 4 - Canteen
- 5 - Anna Statue
- 6 - Hight voltage
- 7 - Soil Mech Engg
- 8 - Engg design division
- 9 - Noise, harness and vibration dept
- 10 - Thermal Engg lab
- 11 - Central workshop
- 12 - Structural Engg division
- 13 - Transportation Engg division
- 14 - Electrical Engg dept
- 15 - Swimming pool
- 16 - Central for international affairs
- 17 - Centre for professional development education