

6<sup>th</sup>

# SAENIS TTTMS CONFERENCE-2023

Embracing Emerging Technologies



**DATE**

21-23 SEPTEMBER, 2023



Samskara Resort, Jaipur,  
Rajasthan, India



**TTTMS**

2023

**#TTTMS2023**

# EVENT-AT-A-GLANCE

DAY-1

21st September, 2023 - THURSDAY

**Note: Organizers reserves the right to change presentation schedule and speakers without any prior notice.**

**08:15 - 09:00 AM | Registration**

**09:00 - 10:15 AM : (Inaugural Session)**

**Mr. UD Bhangale** | ED-SAENIS | Mentor-TTTMS (Welcome Address & Opening Remarks)  
Lamp illumination by Chief Guests & Opening Speech.  
**Dr. Tapan Sahoo** | Chairman-SAENIS | Executive Director (Engg. -MSIL)  
**Mr. YPS Negi** | COO, Subros Limited  
**Mr. AK Goel** | Vice Chairman - Technical (SAENIS GB) | Mentor -TTTMS  
**Mr. Anup Kacker** | Mentor -TTTMS  
Key Note by SAEINDIA/SAENIS GB Members, Sponsors, TTTMS Mentors & EC Members

**02:00 - 03:00 PM (Panel Discussion)**

Topic: India Cooling Action Plan - Emerging Challenges for Mobility Sector  
**Dr. R S Agarwal** | Technical Advisor & Consultant, Ozone Cell;  
**Dr. Satish Kumar** | President & ED, AEEE  
**Ms. Shikha Bhasin** | Sr. Program Lead, CEEW | Consultant, UNEP  
**Mr. Prasanna Nagarhalli** | GM - CV, TML | EC Member - TTTMS2023:  
**Mr. Shriganesh Umbarkar** | AVP - HVAC & EV Thermal Management Systems, MSIL | EC Member - TTTMS2023:  
**Mr. Kapil Singhal** | MD - BP Refcool

**10:15 - 11:00 AM**

Theme: Embracing Emerging Technologies

**Mr. SH Kapoor** | Technical Chief - Climate Control, Tata Motors | Mentor - TTTMS2023  
**Mr. Pankaj Mahajan** | Vice President – Automotive, Transportation, Infrastructure & Industrial | A.T. Kearney Consulting (India) Pvt. Ltd.

**03:00 - 03:15 PM**

Energy Efficiency Improvements Using a Rule-based Look Ahead Controller for Mobile Air Conditioning  
**Speaker:** Sambhaji Jaybhay, Tata Motors Ltd.

**11:00 - 11:15 AM**

Impact Analysis of an Alternate Environment Friendly Refrigerant Deployed in Air Conditioning System of IC Engine & Electric Vehicles  
**Speaker:** Santosh Venu, Tata Motors, Ltd.

**03:15 - 03:30 PM**

Implementation of IR Cut and Solar Green Glass to Optimize the Heat Load for Air Conditioning in Electric Buses  
**Speaker:** Kiran Agalawe, Tata Motors Ltd.

**11:15 - 11:30 AM**

Solid-state cooling in automotives for climate control  
**Speaker:** Aashish Kumar, Tata Elxsi India, Ltd.

**03:30 - 03:45 PM**

Comparative study of HVAC noise sources using acoustical duct method and near field method  
**Speaker:** Arunkumar Goel, Subros, Ltd.

**11:30 - 11:45 AM**

Coupled thermal-structural analysis of off roader radiator assembly.  
**Speaker:** Paulson Parayil, Subros, Ltd.

**03:45 - 04:30 PM**

Tea Break & Networking Session  
Session Break

**11:45 - 12:30 PM**

Tea Break & Networking Session  
Session Break

**04:30 - 04:45 PM**

Invited Sponsor's Speakers Topics  
Case Studies / Technology Trends Presentations by AITTR Representative

**12:30 - 12:45 PM**

Battery Lifetime & Capacity Fade Prediction for Electric Vehicles using coupled Electro-Thermal Simulation Methodology  
**Speaker:** Eshaan Ayyar, Tata Motors Ltd.

**04:45 - 05:00 PM**

Thermal System design for a Fuel Cell Electric Truck  
**Speaker:** Prasanth V, Ashok Leyland, Ltd

**12:45 - 01:00 PM**

Improvement of AC System for Bus with tropical/hot Ambient Application  
**Speaker:** Kiran Agalawe, Tata Motors Ltd.

**05:00 - 05:15 PM**

Cooling Concept for Power Electronics.  
**Speaker:** Nurundayya Hiremath, Vitesco Technologies

**01:00 - 02:00 PM**

Lunch Break

**05:15 - 05:30 PM**

A Method to Evaluate an Air Purification Systems in Public Transport Buses  
**Speaker:** Shubham Vijay Nimsatkar, Tata Motors, Ltd.

**05:30 - 05:45 PM**

Analysis of battery fire safety in electric vehicles: A case study in Indian context  
**Speaker:** Devendra Vashist, Sachin Panwar, MRIIRS Faridabad

**Days Summary & Gala Dinner @9 PM**

DAY-2

22nd September, 2023 - FRIDAY

Note: Organizers reserves the right to change presentation schedule and speakers without any prior notice.

**08:15 - 09:00 AM**

Registration

**09:00 - 09:30 AM**

Real Drive Emissions - Opportunities & Challenges.

Presentation By ICAT

**Mr. Selvaraji Muthu** | SGM | MAHLE Engine Components India

**09:30 - 09:45 AM**

Improving the Performance of Automotive Air Conditioning System at Vehicle Level by Optimizing the Refrigerant Quantity with Optimum Oil Quantity

**Speaker:** Avadhesh Kumar Meena, Subros Ltd

**09:45 - 10:00 AM**

ORVM Based Cabin Thermal Comfort – a Technological Approach

**Speaker:** Swapnil Sorte, Tata Motors, Ltd.

**10:00 - 10:15 AM**

Electro-thermal simulation methodology for Battery Thermal Management System (BTMS) performance evaluation of Li-ion Battery Electric Vehicles

**Speaker:** Mohit Shendre, Tata Motors, Ltd.

**10:15 - 10:30 AM**

A Methodology to thermally Manage Li-Ion Battery Systems and Prevent Catastrophic Thermal Runaways

**Speaker:** Srikumar Srinivasan, Tata Elxsi, Ltd.

**10:30 - 10:45 AM**

Investigation of HVAC Kinematics & Door Noise through Acoustical Duct method

**Speaker:** Somnath Sen, Arunkumar Goel, Subros, Ltd.

**10:45 - 11:00 AM**

Topics: Enabling Holistic Thermal & Energy Management : An Integrated Simulation Approach

**Speaker:** Satej Nakanekar, Gamma Technologies

**11:00 - 11:45 AM**

Tea Break & Networking Session  
Session Break

**11:45 - 12:15 PM**

Corporate Average Fuel Economy

**Mr. Anoop Bhat** | EVP, MSIL | Vice Chairman - Technical, SAENIS

**Mr. DM Mani** | Vice President, AITTR

**12:15 - 12:30 PM**

Development of Compact Battery cooling system with Smart Diagnosis & Troubleshooting tool for Small commercial vehicle

**Speaker:** Kiran Agalawe, Tata Motors, Ltd.

**12:30 - 12:45 PM**

Simulation Technique for Optimizing AC System Sizing & Cabin Cooling Performance for Customer Comfort

**Speaker:** Shekhar Bhangale, Sahil Gakhar, Maruti Suzuki India, Ltd.

**12:45 - 01:00 PM**

1-D Thermal Simulation and Experimental Validation of Li-ion Battery Pack Liquid Cooling System

**Speaker:** Akash Nadgire, Richa Bharti, Pranav Vikas, Ltd.

**01:00 PM - 02:00 PM**

Lunch Break

**02:00 PM - 02:45 PM**

Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles.

**Ms. Aishwarya** | ED -OMI Foundation;

**Mr. Sandeep Raina** | EVP-Engg.; MSIL | Mentor-TTMS 2023

**Mr. Pankaj Mahajan** | Vice President–Automotive, Transportation, Infrastructure & Industrial | A.T. Kearney Consulting (India) Pvt. Ltd.

**02:45 - 03:00 PM**

Efficiency Improvement of Heat Pump for Low Ambient Conditions using Waste Heat from Electrical Vehicle Traction Motor

**Speaker:** Aakash Dagar, Subros Limited

**03:00 - 03:15 PM**

Achievement of superior cabin comfort and maximizing energy efficiency using EXV in BEVs

**Speaker:** Sunny Kumar, Tata Motors, Ltd.

**03:15 - 03:30 PM**

Performance prediction of an e-Compressor using 3D CFD simulation

**Speaker:** Abhishek Ballani, Simerics Inc.

**03:30 - 03:45 PM**

A New Gen ‘Super-Efficient Condenser’ for Mobile Air Conditioning Application

**Speaker:** Suresh Tadigadapa, Tata Motors, Ltd.

**03:45 - 04:00 PM**

Cycle ageing of a commercial lithium-ion cell–A numerical Approach

**Speaker:** Abhay Gudi, Tata Consultancy Services

**04:00 - 04:15 PM**

Simulation to Test results correlation study in a Medium Duty Truck

**Speaker:** Palpandi N, Raviprasad Vadduri, Ashok Leyland, Ltd.

**04:15 - 04:30 PM**

Secondary Cooling based Thermal Management Systems for Electric Commercial Vehicle - An Environment Friendly Solution

**Speaker:** Nishant Sharma, Saurabh Suman, Subros Ltd

Local Sight Seeing is Planned after the Session for the Day is Over (Date: 22nd September, 2023).

Days Summary & Closeup Speech

# DAY-3

23rd September, 2023 - SATURDAY

Note: Organizers reserves the right to change presentation schedule and speakers without any prior notice.

08:15 - 09:00 AM | Breakfast & Networking Session

09:00 - 09:20 AM

Case Study Championship Team 1  
Top 4 Team (Team AGILE) Presentation

09:20 - 09:40 AM

Case Study Championship Team 2  
Top 4 Team (Team COMBUSTORS) Presentation

09:40 - 10:00 AM

Case Study Championship Team 3  
Top 4 Team (Team SYNERGY) Presentation

10:00 - 10:20 AM

Case Study Championship Team 4  
Top 4 Team (Team CHILLCHARGE) Presentation

10:20 - 01:00 PM

Valedictory Session

Mr. IV Rao | Visiting Senior Fellow, TERI | Mentor & Executive Member, SAENIS;

Mr. P Panda | Executive Advisor, MSIL: Senior Vice Chairman, Mentor Tech Activities SAENIS

Mr. Balraj Bhanot | Chairman, TEDC (BIS) | Mentor & Executive Member, SAENIS;

Mr. SH Kapoor | Technical Chief - Climate Control, Tata Motors | Mentor - TTTMS2023

Mr. Srinidhi Dampur | EVP - Technical Centre, Subros

Mr. S. Ramanathan | MD & CEO, ATS | Vice Chairman SAENIS - Seminar & Conferences

Mr. Tuhin Srivastava | Asst. Professor, KIET | Vice Chairman SAENIS - Student Activities

TTTMS Mentors, EC Members, Industry Volunteers

Industry / Academia / Civil Society Delegates

Sponsors Delegates & Students Team Members

## Our Sponsors

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TATA AUTOCOMP

TACO AIR INTERNATIONAL

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