

**A Report on Webinar**  
**“Emerging Trends in Automobile Engineering”**  
 Organized by **Department of Mechanical Engineering**  
 In Association with **IIIC- MITS**  
 Date: **30.04.2024**



**MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE**  
(UGC - AUTONOMOUS INSTITUTION)  
Madanapalle-517325, Annamayya District, Andhra Pradesh



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**DEPARTMENT OF MECHANICAL ENGINEERING**  
in Association with IIIC-MITS Organizes

A WEBINAR on

**EMERGING TRENDS IN AUTOMOBILE ENGINEERING**

Resource Person

**MR. XAVIER JAGANATHAN**  
CEO, GOODWIN MOTORS, CHENNAI, INDIA

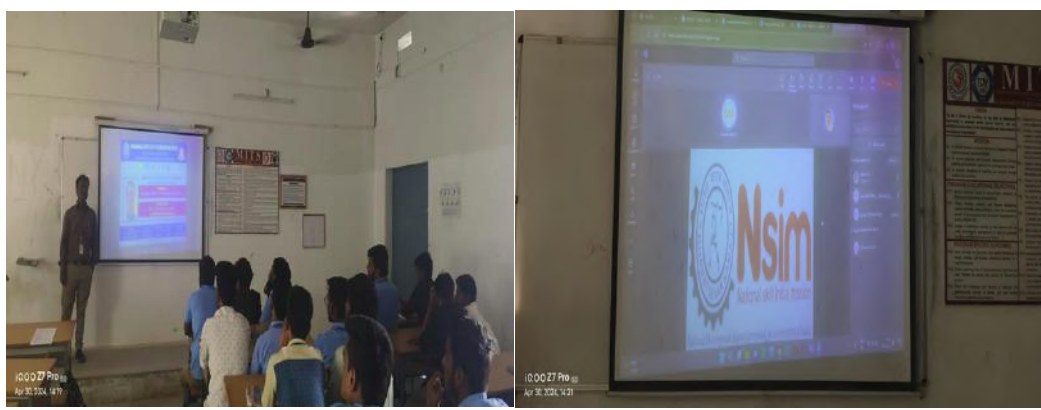
Date: 30.04.2024    Time: 2.00 - 4.00 PM    Venue: WB107

Chief Patron Dr. N. Vijaya Bhaskar Choudary, Ph.D., Secretary & Correspondent	Patron Mrs. Keerthi Nadella Executive Director	Chief Convenor Dr. C. Yuvaraj Principal	Convenor Dr. S. Baskaran Head, ME	Coordinator Mr. Kumar G. Assistant Professor, ME
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**Submitted & Coordinated by: Mr. G. Kumar., Assistant Professor, Dept. of ME.**  
**Resource Person: Mr. Xavier Jaganathan, CEO, Good win Motors, Chennai-600 048.**  
**Time: 02:00-4.00 PM**  
**Venue: WB 107**  
**Attendance: 70 Participants**  
**Report Received on 06.05.2024**  
**Mode of Conduct: Online**

The event commenced at 02:00 PM, opened with a greeting to all attendees by **Mr. G. Kumar** Assistant Professor of Mechanical Engineering at MITS, Madanapalle. This was followed by remarks from **Dr. S. Baskaran**, the Head of the Mechanical Engineering Department at MITS, Madanapalle. **Mr.G. Kumar** then provided a concise introduction of the resource person for the day. Following this, the session was given to **Mr. Xavier Jaganathan**, CEO, Good win Motors, Chennai.



**Mr. Xavier Jaganathan** initiated his talk by expressing his deep gratitude to the students, the organizing team, department head, principal, and the management of MITS, Madanapalle for the chance to impart his expertise on **“Emerging Trends in Automobile Engineering”**.

Throughout his online presentation, **Mr. Xavier Jaganathan** delivered several important aspects of recent developments in autonomous cars in the field of mechanical engineering.

### The Following Topics Were Discussed In the Session:

- **AUTONOMOUS CARS**
- **ELECTRIC VEHICLES - BEV, HEV, PHEV, EREV**
- **V2X TECHNOLOGY**
- **PREDICTIVE MAINTENANCE**
- **AUTONOMOUS CARS**
- **ADAS (A-DVANCED D-RIVER A-SSISTANCE S-YSTEMS)** No driver presence is required. No steering wheel, machine will take all the control. Driver just sit backside and relax.
- **ELECTRIC VEHICLES - BEV, HEV, PHEV, EREV**
- **EV COMPONENTS**

Battery

Motor

Invertor if ac motor is used

Single stage transmission

Cooling system in tesla

- **V2X TECHNOLOGY**

vehicle-to- vehicle (V2V),

vehicle-to-infrastructure (V2I),

vehicle-to-network, (V2N)

vehicle-to-pedestrian (V2P)

Finally, **Mr. Xavier Jaganathan** explained more about Predictive Maintenance software used in data science and predictive analytics to estimate when a piece of equipment might fail so that corrective maintenance can be scheduled before the point of failure.



### **Vote of Thanks:**

The session was concluded at 4.00 PM followed by a vote of thanks, given by Coordinator of the webinar, **Mr. G. Kumar**, Assistant Professor, Department of Mechanical Engineering, MITS, Madanapalle.

### **Outcome of the webinar:**

1. Through the Webinar, participants gain more knowledge about the latest autonomous cars used in automobile engineering.
2. Electric vehicle technology and their types, tesla induction motors.
3. Wireless sensor networks -Goal is to schedule maintenance at the most convenient and most cost-efficient moment, allowing equipment's lifespan to be optimized to its fullest, but before the equipment has been compromised.
4. Participant can also learn more about thermal imaging predictive analysis, Vibration analysis Oil analysis, Ultrasonic leak detection and acoustic testing.