

Conference on

LIGHTWEIGHT SUSTAINABLE MANUFACTURING SOLUTIONS FOR CLEAN ENERGY MOBILITY



17th October 2024



09:00 hrs to 16:30 hrs



Venue



ARAI Academy, ARAI Forging Industry Division, Chakan
B-16/1, MIDC Chakan, Tal. Khed, Dist. Pune 410 501 Maharashtra
Google Map Link: <https://maps.app.goo.gl/gpsgNcc5U76DXCAT8>

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About Conference:




Renewable Green Energy plays a crucial role in automotive design, particularly lightweight materials and sustainable manufacturing processes. The world is currently addressing three key aspects: environmental protection from greenhouse gases (GHGs), safeguarding human health and rights, and controlling ozone depletion. The ultimate goal is to achieve zero GHG emissions in the future by laying down specific milestones and roadmaps in the transition phases. Visionary leaders, NGOs, and governments collaborate to achieve these ambitious goals.

The shift from fossil fuels to renewable energy necessitates rethinking high-performance lightweight materials used in product manufacturing. Challenges include substantial investments in infrastructure, development costs for green energy resources (such as lithium-ion and sodium-ion batteries), efficient battery management systems, magnets in electric motors, rare earth elements, and safety considerations for hydrogen fuel cell storage. The International Energy Agency (IEA), e.g. projects billion USD investments in green steel manufacturing.

This conference aims to provide knowledge-based sustainable manufacturing solutions in lightweight material design. The invited industry experts will deliver presentations on the relevant topics for the benefit of participants to promote sustainable solutions in achieving zero emission vehicle designs. The Ministry of Mines' R&D and startup funding programs will be highlighted during a special session by JNARDDC, to discuss the opportunities and problems related to the non-ferrous metals in automobiles.



Program Outlay & Schedule

Activity		Timing
Registration with Breakfast		8:00 am to 9:00 am
Inauguration		9:00 am to 9:15 am
	Inaugural Keynote Address: <i>Business Opportunities and Economics in Green Energy Vehicle Developments in Lightweight Materials and Sustainable Product Manufacturing</i> by Mr. S. J. R. Kutty, Vice President and Chief Sustainability Officer, Tata Motors Limited, Pune	9:15 am to 9:45 am
	Keynote Address: <i>Hydrogen Fuel Cell Storage Tank Manufacturing in Lightweight Materials Considering Safety & Crashworthiness Aspects</i> by Dr. Sandeep Waykole, India Business Director, FORVIA Faurecia, Pune	9:45 am to 10:15 am
Tea Break		10:15 am to 10:30 am
	<i>Alternate Materials and Joining Techniques for Lightweight Structures</i> by Mr. Sanjeev Hallale, Staff Engineer (Structural Optimization), John Deere India Pvt. Ltd., Pune	10:30 am to 11:00 am



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	Activity	Timing
	<p>Hot Forming of Aluminium Alloys for Green Energy Vehicle Applications by Mr. Sachin Nirgudkar, Director, Industrial Interface India (3i), Pune</p>	11:00 am to 11:30 am
	<p>Long Fibre Composites for the EV by Mr. Anil George, Co-Founder & Managing Director, Autodynamics</p>	11:30 am to 12:00 pm
	<p>Material Solutions for Demanding Automotive Applications by Mr. Rohit Ojha, Technical Marketing Specialist, Alleima</p>	12:00 pm to 12:30 pm
	<p>Lithium-ion & Sodium-Ion Battery Manufacturing Methods for the BEV by Dr. Satish Ogale, Director, Research Institute for Sustainable Energy (RISE)</p>	12:30 pm to 1:00 pm
Lunch Break		1:00 pm to 1:45 pm
 	<p>3D Modelling Using Molecular Simulation Packages in Lightweight Materials With a Case Study by Mr. Rajat Kumar, Sr. Technical Specialist – Materials (IPAC), Hexagon Manufacturing Intelligence & Dr. Parimal Maity, Specialist, Eaton India Innovation Center</p>	1:45 pm to 2:15 pm
	<p>Advanced material modeling techniques for developing crashworthy and lightweight structures by Mr. Suhail M. Mulla, Manager, The Automotive Research Association of India</p>	2:15 pm to 2:45 pm
Tea Break		2:45 pm to 3:00 pm
	<p>Special Session by JNARDDC, Sponsor, on “Non-ferrous metals in the automobile industry : Challenges and Opportunities”</p> <ul style="list-style-type: none"> • Opening Address by Dr. Anupam Agnihotri, Director, JNARDDC • Objectives of special session: Key challenges related to non-ferrous materials in the automobile sector by JNARDDC • Industry representatives' thoughts on "non-ferrous metals: challenges & opportunities • Open forum discussions • Summarisation and Key Takeaways 	3:00 pm to 4:15 pm



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Who should attend:

- Automotive OEMs
- Tier-I, Tier-II, Tier-III component Manufacturers
- Engineering
- Bus body and Truck body builders
- Component Manufacturing and Assembling Units
- Material sourcing and Suppliers
- Consultants and Advisers
- Designers using software packages
- Research & Development Institutes, Laboratories
- Engineering students / PhD Scholar / Professors
- Project investors and partners
- Startup

***Organizers reserves the right to change date, content, schedule, etc. without any notice.**



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Table Space (INR 10,000/-)

- Two complimentary passes
- Logo (small size - Size 1) in all promotional materials
- Streaming of promotional videos during the conference (1 minute)
- Opportunity to participate as a speaker

- One Table Space for Display
- Display should be related to development projects in light weighting
- There are 3 table space available as of now.



Registration Fee (including GST):

- **Non Member:** ₹ 5,900/-
- **Member: (ARAI Company / LWT / SAEINDIA Members)** ₹ 3,540/-
- **Student:** ₹ 1,770/-



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