

## LWT Conference 2018 was a Great Success



**L**ightweight Technology Group (LWT), in association with Arkey Conference Cell hold biennial International conferences and exhibitions since year 2012. After successful events in 2012, 2014 and 2016, the LWT group organized yet another successful conference on “Aluminium & Magnesium the Sustainable Light Weight Solutions for Transport Sector” on 23-24 February 18 at Grand Sheraton Hotel in Pune.

The conference on the topic “Aluminium & Magnesium the Sustainable Light Weight Solutions for Transport Sector” saw large participation by majority of the stakeholders of lightweight technology in transport sector. The speakers focussed their talks on products, manufacturing processes, applications, developments, simulation techniques for design, cost and availability of Aluminium and Magnesium alloys. The papers covered diverse transport sectors like automobiles, railways, aerospace and defence.

The conference was inaugurated by Dr. Shailendra Kumar Tamotia, Former Chairman & Managing Director, NALCO. In his inaugural speech, Dr. Tamotia appreciated the initiative to hold a conference on “Aluminium & Magnesium the Sustainable Light Weight Solutions for Transport Sector”. According to him innovation is the need of the hour to maximize usage of Aluminium for light weighting, considering regulations on fuel economy, safety &, crash worthiness, and greenhouse gases (CO2 emissions).

Dr. K.S.S. Murthy a well known expert

in the field of Aluminium gave a very good perspective of status of aluminium in the country. He also highlighted the need to accelerate the efforts of primary aluminium alloy manufacturers and vehicle manufactures if we need to derive the benefits of aluminium.

Keynote address by Vishal Seth, CEO & Managing Director, Arconic of India Private Limited gave us a great insight in the application areas of aluminium in the entire transport sector. He also touched on the life cycle cost of aluminium wheels, which can be a deciding factor for vehicle or application.

We also got insight into the challenges for use of Aluminium in Light weighting of vehicles from keynote address of Shripadraj Ponshe, Head Materials Eng., and TLC, TDBM & LC, VATS, Engineering Research Centre, TATA MOTORS LTD.

These inaugural speeches and the keynote speeches were highly acclaimed by all the stakeholders in the audience and set the direction for the conference proceedings. Technical Papers were presented by R & D Organisations, Aluminium Manufacturers, Magnesium Casting Manufacturers, Software Companies, Vehicle Manufacturers, and Defence Ministry etc which covered diverse topics like

- Use of Aluminium in electric wheels.
- Manufacturing Technologies like hot forming, Warm Pressing.
- Forming Method.

- Optimisation of design multi align with strength, rigidity, elongation etc.
- Adhesives for joining and joining techniques.
- Aluminium Buses, perspectives and Challenges.

There was a small parallel exhibition with stalls showcasing developments

The stall put up by IIT Bombay showcasing innovative way of recycling Aluminium and by ARCI, Hyderabad, on various joining technologies for Aluminium with Aluminium and other lightweight materials with a view to reduce weight need special mention.

In the concluding valedictory address by Shrikant Marathe, Former Director of ARAI, highlighting important learning from the conference and a way forward to promote the lightweight technology. The learning from the conference can be summarized as :

- Technologies are available in the country totake advantage of Aluminium and Magnesium for light weighting in Transport sector to derive the desired benefits.

- Serious efforts are required to promote use of Aluminium in new Vehicles, Electric Vehicles.

- Our obsession of high cost of lightweight materials needs to be challenged. We need to find out ways to communicate the concept of lifetime cost and the benefits of use of Aluminium and Magnesium to the end users.

- Efforts are needed from both aluminium suppliers and Manufacturers to reduce cost, so that it has a smoother introduction in future vehicles.

- There is a need to develop roadmap for the penetration of Aluminium in Indian Transport sector with consideration to future regulations, Cost, Recycling infrastructure, Electric mobility.

The conference was a great success and proceedings and active participation by stakeholders will help in taking forward the objective of LWT group to disseminate and use the knowledge to implement in LWT in actual practice to accrue the benefits.