

# LIGHTWEIGHT INTERIORS FOR TRANSPORT COST-EFFECTIVE SOLUTIONS FOR REDUCING WEIGHT AND MEETING CUSTOMER EXPECTATIONS

Institution of  
**MECHANICAL  
ENGINEERS**

Knowledge Transfer  
**Seminar and Workshop**

28–29 June 2016  
etc.venues, Birmingham, B4 6TB

More details available at  
**[www.imeche.org/lightweightinteriors](http://www.imeche.org/lightweightinteriors)**

## KEY SPEAKERS INCLUDE:

Gero Kempf  
Chief Engineer Body Strategy, Architecture  
and Advanced Product Creation  
**Jaguar Land Rover**

Aysegul Durak  
Cabin Interior Chief Engineer  
**Turkish Airlines**

Paul Pickett  
Chief Engineer - Interiors  
**Lotus**

Chris Tait  
Head of Engineering Projects  
**ScotRail**



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# LIGHTWEIGHT INTERIORS FOR TRANSPORT COST-EFFECTIVE SOLUTIONS FOR REDUCING WEIGHT AND MEETING CUSTOMER EXPECTATIONS

28 June, 2016 - Pre-Seminar Workshop  
29 June, 2016 - Main Seminar  
Birmingham

## MAKE SURE YOU ATTEND LIGHTWEIGHT INTERIORS FOR TRANSPORT TO DISCOVER CROSS- INDUSTRY SOLUTIONS FOR CUTTING MASS WHILE MEETING CUSTOMER EXPECTATIONS INSIDE THE VEHICLE.

Customer demands and safety requirements are continuously adding mass to vehicles and increasing from one development to the next.

The transport sector is being pressured to reduce emissions and increase efficiency. Aerospace, Automotive and Railway are utilising innovative materials, techniques and designs to drive down mass while meeting customer expectations and safety standards.

### KEY REASONS TO ATTEND:

- Understand how Jaguar Land Rover, ScotRail and Turkish Airlines are reducing weight, maintaining costs and meeting customer expectations
- Airbus, Tata and Turkish Airlines will discuss how unused space can be better utilised and how to reduce weight and complexity in the interior environment
- Hear what impact less dense and lighter materials have on Noise, Vibrations and Harshness (NVH) and lose weight simultaneously
- Gain insight into London Underground and NewRail Newcastle University approach to crash and fire safety
- Learn what can be done to process materials and make them stronger without impacting weight from Nissan
- Determine what materials are available now and in the future for meeting interior requirements with insights from Lotus, Airbus and London Underground

## PRE-SEMINAR WORKSHOP 28 JUNE 2016

## MASS REDUCTION IN SEATING: ENSURING COMFORT AND STABILITY IN LIGHTWEIGHT SEATING

June 28, 2016  
Pre-Seminar Workshop

**" THIS HALF-DAY WORKSHOP  
WILL ALLOW ATTENDEES  
TO TAKE AWAY THE LATEST  
DESIGN AND ENGINEERING  
INNOVATIONS FOR REDUCING  
MASS AND MATERIAL USE IN  
SEAT CONSTRUCTION WITHOUT  
COMPROMISING COMFORT,  
STABILITY AND SAFETY. "**

### Contributions From:

David Irving, Group Chief Engineer,  
Body, Trim and Lighting Engineering  
**Tata Motors**

Emmanuel Matsika, Research Associate  
**NewRail Newcastle University**

John White, Leasing Aircraft Cabin Project Manager  
**Air Tanker**

### AGENDA

13:30	<b>FINDING A COMPROMISE: LIGHTWEIGHT SEATING – LUXURY AND COMFORT VS WEIGHT</b>
14:15	<b>REDUCING THE MASS OF SEATING WITHOUT A LOSS OF COMFORT, STABILITY OR SAFETY</b>
15:00	<b>INCORPORATING TECHNOLOGY INTO SEATING WITHOUT INCREASING THE WEIGHT</b>
15:45	<b>NETWORKING REFRESHMENT BREAK</b>
16:15	<b>ROUNDTABLE DISCUSSIONS</b> Topics for discussion: <ul style="list-style-type: none"><li>• High Density Seating: Maximising Seat Capacity Without Impacting Comfort</li><li>• Seating Safety Without Restraints In Transport</li><li>• Re-Thinking The Seating Structure</li></ul>
17:00	<b>END OF WORKSHOP</b>

BOOK EARLY AND **SAVE UP TO £70**  
**OFFER ENDS 06 MAY 2016**

CONFERENCE AND WORKSHOP  
COMBINATION PASSES AVAILABLE  
[WWW.IMECHE.ORG/LIGHTWEIGHTINTERIORS](http://WWW.IMECHE.ORG/LIGHTWEIGHTINTERIORS)  
TERMS AND CONDITIONS APPLY

# MAIN SEMINAR PROGRAMME

JUNE 29 2016	
08:30	REGISTRATION AND REFRESHMENTS
09:00	CHAIR'S OPENING REMARKS
	<b>CUSTOMER EXPECTATIONS VERSUS WEIGHT REDUCTION</b>
09:10	<b>CROSS INDUSTRY KEYNOTE PANEL DISCUSSION: FINDING THE BALANCE: REDUCING WEIGHT, MAINTAINING COSTS AND MEETING CUSTOMER EXPECTATIONS</b> Aysegul Durak, Cabin Interior Chief Engineer, Turkish Airlines Gero Kempf, Chief Engineer Body Strategy, Architecture and Advanced Product Creation, Jaguar Land Rover Chris Tait, Head of Engineering Projects, ScotRail
	<b>WEIGHT REDUCTION IN PACKAGING AND INTEGRATION</b>
09:40	<b>PANEL DISCUSSION: UTILISING 'UNUSED' SPACE AS A WEIGHT REDUCTION OPTION</b> David Irving, Group Chief Engineer: Body, Trim and Lighting Engineering, Tata Motors Ingo Roth, Technology Product Leader Cabin and Cargo Interior and Material, Airbus
10:10	<b>OUT WITH THE OLD, IN WITH THE NEW: REDUCING WEIGHT AND COMPLEXITY IN THE INTERIOR ENVIRONMENT</b> Aysegul Durak, Cabin Interior Chief Engineer, Turkish Airlines
10:40	NETWORKING REFRESHMENT BREAK
	<b>WEIGHT REDUCTION IN COMFORT, CRASH SAFETY AND STRUCTURAL STABILITY</b>
11:10	<b>DESIGNING AND DEVELOPING LIGHTWEIGHT SEATS IN SHORTER TIME, WHILE ENSURING PASSENGER COMFORT AND SAFETY</b> Caroline Borot, Marketing and Business Development Manager, Industry Solutions, ESI Group
11:40	<b>MEETING LEGISLATIVE REQUIREMENTS AND STANDARDS FOR CRASH SAFETY WITH LIGHTWEIGHT MATERIALS</b> Conor O'Neill, Rail Vehicles Group Manager, NewRail Newcastle University
12:10	<b>UNDERSTANDING MATERIAL AVAILABILITY FOR MEETING FIRE SAFETY REGULATIONS AND STANDARDS</b> Sam Sambasivan, Projects Directorate, London Underground
12:40	NETWORKING LUNCH
13:40	<b>INNOVATIONS IN PROCESSING AND FORMING MATERIALS FOR GREATER USABILITY</b> Mark Ellis, Manager – Material Design and Test, Nissan
	<b>MATERIAL FOCUS</b>
14:10	<b>PANEL DISCUSSION: DETERMINING WHAT MATERIALS ARE AVAILABLE NOW AND IN THE FUTURE FOR MEETING INTERIOR REQUIREMENTS</b> <b>PAUL PICKETT, CHIEF ENGINEER – INTERIORS, LOTUS</b> Ingo Roth, Technology Product Leader Cabin and Cargo Interior and Material, Airbus Sam Sambasivan, Projects Directorate, London Underground
14:40	NETWORKING REFRESHMENT BREAK
15:10	<b>CROSS INDUSTRY APPLICATIONS: INTRODUCING AEROSPACE MATERIALS TO RAIL</b> Rakesh Gaur, Principal Technology and Innovation Manager, London Underground
15:40	<b>NEXT GENERATION MATERIALS: A ROADMAP FOR LIGHTWEIGHT MATERIALS AND STRUCTURES</b> Gundolf Kopp, Head of Research Area, Institute of Vehicle Concepts Lightweight and Hybrid Design Methods, German Aerospace Center (DLR)
16:10	CHAIR'S CLOSING REMARKS
16:20	END OF SEMINAR

For the most up-to-date and detailed programme for the event, please visit [www.imeche.org/lightweightinteriors](http://www.imeche.org/lightweightinteriors)

- This programme is subject to change.
- The Institution is not responsible for the views or opinions expressed by individual speakers.



## HOW TO BOOK YOUR PLACE

### FEES AND CHARGES

	2016 Early Bird Price Until 06 May 2016	VAT	2016 Standard Price Until 23 June 2016	VAT	On the Door Friday 24 June onwards	VAT
Conference and Workshop	£379.00	£75.80	£429.00	£85.80	£449.00	£89.80
Conference	£289.00	£57.80	£329.00	£65.80	£349.00	£69.80
Workshop	£149.00	£29.80	£179.00	£35.80	£199.00	£39.80

### THREE WAYS TO BOOK

**1** Online:  
[www.imeche.org/lightweightinteriors](http://www.imeche.org/lightweightinteriors)

**2** Email:  
[eventenquiries@imeche.org](mailto:eventenquiries@imeche.org)

**3** Phone:  
+44 (0)20 7973 1251

Please read the information listed below as each booking is subject to the Institution's standard terms and conditions.

#### CONDITIONS OF BOOKING

Completed application forms should be returned to the address above, along with the correct payment. Attendance at the event will be confirmed on receipt of the full balance. All participants are advised to bring a copy of their confirmation with them on the day, to ensure the fastest possible entry.

#### SPECIAL REQUIREMENTS

Please inform us of any special requirements, ie dietary or access, on the relevant section of this form.

#### CANCELLATION

For a refund (minus £25+VAT admin charge), cancellations must be received at least 14 days prior to the event. Replacement delegates are welcome at any time. The Institution reserves the right to cancel any event. In this case, the full fee will be refunded unless a mutually convenient transfer can be arranged. In the event that the Institution postpones an event for any reason and the delegate is unable or unwilling to attend on the rescheduled date, they will receive a full refund of the fee paid.

The Institution is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. The Institution shall assume no liability whatsoever if this event is cancelled, rescheduled or postponed due to a fortuitous event, Act of God, unforeseen occurrence or any other event that renders performance of this conference impracticable, illegal or impossible. For the purposes of this clause, a fortuitous event shall include, but not be limited to: war, fire, labour strike, extreme weather or other emergency.

Please note that while speakers and topics were confirmed at the time of publishing, circumstances beyond the control of the organisers may necessitate substitutions, alterations or cancellations of the speakers and/or topics. The Institution reserves the right to alter or modify the advertised speakers and/or topics if necessary without any liability to you whatsoever. Any substitutions or alterations will be updated on the event's webpage as soon as possible.

#### LIABILITY

The organisers do not accept liability for any injuries or losses of any nature incurred by delegates and/or accompanying persons, nor for loss or damage to their luggage and/or personal belongings.

#### CONFERENCE VENUE

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1 Birdcage Walk  
Westminster  
London  
SW1H 9JJ  
T +44 (0)20 7222 7899  
[www.imeche.org](http://www.imeche.org)

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### OTHER EVENTS TO LOOK FOR

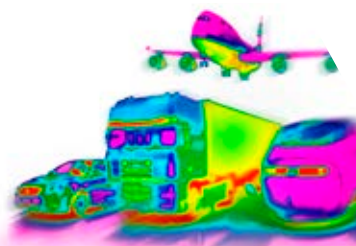


## HYDROGEN: A FUEL FOR TRANSPORT AND ENERGY STORAGE

**01 June 2016, Institution of Mechanical Engineers, One Birdcage Walk, London**

With hydrogen projects gathering pace across the transport sector and beyond, leading industry figures will analyse barriers and opportunities, determining the future scope for hydrogen.

[www.imeche.org/hydrogen2016](http://www.imeche.org/hydrogen2016)



## THERMAL ENGINEERING FOR TRANSPORT

**02 June 2016, The Roundhouse, Derby**

Discover best practices for thermal management design, simulation and packaging in transportation and optimising design under weight and cost restrictions.

[www.imeche.org/thermalengineering](http://www.imeche.org/thermalengineering)

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