

## Registration and Fees

To register online for the Workshop please use the following link: <http://iw6-registration.kmm-vin.eu>

The Workshop participation fees are as follows:

- **KMM-VIN members: 150 €**
- **FEMS members: 150 €**
- **Non-members: 250 €**

Registration fee includes admission to all sessions, booklet of abstracts, coffee and beverages during breaks, buffet dinner and lunch.

The KMM-VIN office will confirm your registration for the Workshop within 24 hours. After that you will be asked to proceed with the payment of the Workshop fee by bank transfer.

Bank account details:

**KMM-VIN AISBL, rue du Trône 98, 1050 Brussels**

**Account no.: BE42 3630 2151 6054**

**BIC (Swift): BBRU BEBB**

## Contact

For any question concerning the workshop please contact the Workshop chairs: Andreas Chrysanthou (UH), [A.Chrysanthou@herts.ac.uk](mailto:A.Chrysanthou@herts.ac.uk) or Peter Hansen (Element), [peter.hansen@element.com](mailto:peter.hansen@element.com).

## About KMM-VIN

The European Virtual Institute on Knowledge-based Multifunctional Materials (KMM-VIN AISBL) is an international non-profit association devoted to the understanding, design and development of novel materials (e.g. ceramic, metallic, metal-ceramic, intermetallic, polymer and combinations thereof) with a view to enhance their functional properties and performance characteristics.

As a non-profit organisation KMM-VIN creates conditions for its members for networking and conducting joint research on processing, characterisation and modelling of advanced materials, supported by the mobility programme for young researchers.

For external customers KMM-VIN offers integrated R&D solutions, access to specialised research infrastructure and databases on KMM materials and members' R&D expertise. KMM-VIN has extensive experience of providing customised courses and training opportunities in the field of advanced structural and multifunctional materials with focus on Transport, Energy and Biomedical sectors.

For further questions please contact:  
[Michal.Basista@kmm-vin.eu](mailto:Michal.Basista@kmm-vin.eu)

## Workshop venue

The workshop will be held in room E351 at the College Lane campus, University of Hertfordshire, College Lane, Hatfield, Herts AL10 9AB.

A map can be accessed at:  
<http://iw6-map.kmm-vin.eu>

Hatfield is accessible by both air and rail and can be reached from:

1. **Luton airport.** There is a National Express coach that takes about 30 minutes to the Hatfield Galleria. Alternatively one can travel from Luton Parkway rail station and then travel by train to St. Albans (13 minutes). If you buy a return ticket, it is best to specify the day of your return because prices vary. From St. Albans station you can travel to Hatfield by (i) taxi (about £14 during the day) or (ii) bus (bus 301 or 602 from outside the station). The University and the hotels are within walking distance from the Galleria.

2. **Stansted airport.** On arrival take a National Express coach to the Hatfield Galleria. The journey time is about 50 to 60 minutes. The University and the hotels are within walking distance from the Galleria.

3. **Heathrow airport.** On arrival take the London underground to King's Cross (about 1 hour) and then the (overground) rail service to Hatfield (takes about 20 minutes, trains usually leave at 5 minutes and 35 minutes past the hour). At Hatfield station you can take a taxi (about £8, more after 11 pm). Alternatively, you can take a bus to the University (the 602 is the most regular service).

4. **Gatwick airport.** On arrival, take a train to King's Cross/St. Pancras (takes about 50 minutes). King's Cross and St. Pancras are next to each other. From there take the (overground) rail service to Hatfield (takes about 21 minutes, trains usually leave at 5 minutes and 35 minutes past the hour). At Hatfield station you can take a taxi (about £8, more after 11 pm). Alternatively, you can take a bus to the University (the 602 is the most regular service).

5. **St. Pancras station (Eurostar trains).** On arrival, take the (overground) rail service to Hatfield (takes about 20 minutes, trains usually leave at 5 minutes and 35 minutes past the hour) from King's Cross. At Hatfield station you can take a taxi (about £8, more after 11 pm). Alternatively, you can take a bus to the University (the 602 is the most regular service).

## Accommodation

The nearest hotels to the workshop venue are:

**Beales Hotel**  
<http://www.bealeshotels.co.uk/hatfield/>

**Ramada Jarvis Hotel**  
<http://www.ramadahatfieldhotel.co.uk/>

**Premier Inn**  
<http://iw6-premierinn-hotel.kmm-vin.eu>

**Mercure Hatfield Oak Hotel**  
<http://www.hotels-hatfield.com/>

On arrival on the day of the workshop, please report to the Main Reception at the College Lane Campus. If you are travelling by car and need parking space at the University, please inform Andreas Chrysanthou, [A.Chrysanthou@herts.ac.uk](mailto:A.Chrysanthou@herts.ac.uk)

## KMM-VIN 6<sup>th</sup> Industrial Workshop

7<sup>th</sup>-8<sup>th</sup> April 2016  
Hatfield, UK

## Innovative Material Solutions for Transport Applications



organized by

University of Hertfordshire



Element Materials Technology Hitchin



and

European Virtual Institute on Knowledge-based  
Multifunctional Materials AISBL



## Objectives

There is a continuous effort to produce alternative and more efficient materials for the automotive, rail and aerospace sectors. The development of improved or lightweight materials along with innovative design, modelling and processing techniques is driven by the need to produce transport vehicles of lower energy consumption and lower greenhouse gas emissions. In many applications the materials are required to operate in extreme environments (temperature, pressure, strain rate, fluids, gases, mechanical loads, etc.).

This industrial workshop will address innovative materials development, testing and modelling for future **automotive, rail and aerospace applications**.

The main focus is on:

- advanced metals and ceramics
- novel metal-ceramic composites, FGMs and coatings
- polymers and polymer-matrix composites
- joining of dissimilar structural materials
- recycling technologies
- fatigue and corrosion behaviour
- simulation and modelling of materials behaviour.

This is the 6<sup>th</sup> Industrial Workshop organised by KMM-VIN and partners over the last 3 years. Previous workshops have included energy, transport, biomaterials and modelling.

The University of Hertfordshire is located north of London and is served by 5 airports within 40 minutes (Luton and Stansted airports are the closest). Element Hitchin is located 30 minutes north of Hatfield and a visit to these facilities can be organised if delegates are interested.

## Workshop programme

The workshop programme consists of keynote lectures and original contributions (oral and poster) submitted by workshop participants. Besides technical aspects, the workshop will provide a good opportunity for networking, which may result in future collaborative projects.

**7<sup>th</sup> April 2016**

**Registration** (12:30-13:30)

**Keynote lectures** (13:30-15:00)

*Key Drivers and Needs for Automotive Materials*

**Andrew Haggie**, Senior Manager, Materials Engineering, Jaguar / Land Rover, UK

*Advanced Composites in Rail Applications*

**Ajay Kapadia**, Knowledge Transfer Manager, KTN, UK

*Overview of Aerospace Materials Requirements*

**Robert Quarshie**, Head, Materials & Nanotechnology, Knowledge Transfer Network, UK

**Coffee break** (15:00 -15:30)

**Oral session I** (15:30-17:45)

*Presentations by Workshop participants*

**Poster session and buffet dinner** (17:45 - 18:30)

*Short oral introduction of each poster followed by discussions at posters*

**Visit to UH labs** (18:30 – 19:30)

## Workshop programme

**8<sup>th</sup> April 2016**

**Keynote lectures** (8:30-10:00)

*New Functionalities and Performances of Materials designed and produced by Vacuum Coating Technologies for the Automotive Industry: Present situation and future aspects.*

**Gerry van der Kolk**, Chief Technology Officer, Ionbond Netherlands

*Innovation in Metal Soul of FCA Passenger Cars*

**Flavia Gili**, Fabio d'Aiuto, Centro Ricerche Fiat - Global Materials Labs, Italy

*Advanced Manufacturing Routes for Dissimilar Materials*

**Valentina Casalegno**, Monica Ferraris, Milena Salvo and the GLANCE team, Politecnico di Torino, Italy

**Coffee break** (10:00-10:30)

**Oral session II** (10:30-12:30)

*Presentations by Workshop participants*

**KMM-VIN Forum and Networking** (12:30-13:15)

**Buffet Lunch** (13:15-14:00)

**Visit to Element Hitchin for any interested delegates**  
(14:00-16:00)

Transport can be provided

