



## “Automotive Electronics”

Electronics Enabling the Low Carbon Economy

Book the Date: Tue 22<sup>nd</sup> / Wed 23<sup>rd</sup> June 2010

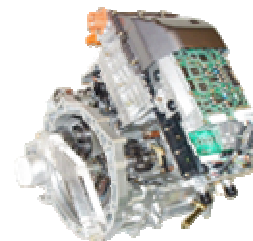
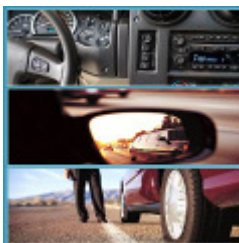
Location: University of Warwick

**\*\*\* Free to members and invited guests \*\*\***

### *Introduction*

NMI is delighted to introduce the second event of the “Electronics Enabling the Low Carbon Economy” Network. With a focus on the automotive sector we are delighted to be working in partnership with SMMT, the automotive industry trade body.

It’s well-recognised that electronics is a major part of automobile value. With the continuing rapid pace of developments in semiconductors and the emergence of the volume electric vehicle market, NMI believes there are now significant new opportunities in the automotive electronics supply chain. Working closely with SMMT, we have aimed this event at bringing together the automotive electronics supply chain from semiconductor materials to major automotive companies. This event will explore these opportunities from the both supply and demand perspectives and will provide a focal point for building greater understanding of technology capability and market requirements.



This event, hosted this year by the University of Warwick at their impressive International Conference Centre, will include leading speakers from companies and organisations such as **TATA Motors, Jaguar Land-Rover, Ricardo, Freescale Semiconductor, Infineon, NXP, Axion, University of Warwick, Mentor Graphics, International Rectifier, Synopsys** and will focus on how the electronics industry is responding to the challenges is battery electronics, efficient and safe charging systems, next generation ECUs / body electronics. The event will also explore the potential of new emerging electronic materials such as silicon carbide and gallium nitride.

### *Event host & Sponsors*



### *Event Supported by*



**For On-line Registration:** [www.nmi.org.uk/events/nmi-events](http://www.nmi.org.uk/events/nmi-events)

**For Vehicle Exhibition & Table Top availability:**

**Call** :+44 (0) 1506 401210

**Email** : [sophie.ericson@nmi.org.uk](mailto:sophie.ericson@nmi.org.uk)

### **Event Overview:**

The event will appeal directly to companies engaged in the automotive electronics supply chain from materials development to vehicle manufacturers. It is aimed at Senior Engineering, Programme Management and Business Development professionals active in this area.

In addition to our line up of exciting talks we invite you to get your questions ready for an exciting **Panel debate** on the topic of “**Low Carbon Vehicles – Reaching the tipping point ?**”.

Don't miss this opportunity to learn about the future of Automotive Technology and where Electronics plays a key enabling role.

The event comprises:

**Technical Knowledge sharing** - Presentations from leading Industry Experts and Researchers

**Q&A Opportunities** – Open sessions for the audience to ask key questions and for leading speakers to debate.

**Mini-Expo** - At a small cost delegates have the opportunity for a “Table Top” expo to demonstrate particular capability. This is aimed at new business development, R&D collaborations, A2B and B2B partnerships.

**Static Vehicle Demonstrators** - The following companies will have a demonstrator at the event.

- TATA Motors
- Allied Vehicles
- University of Warwick F3 ( University of Warwick )
- Jaguar Land-Rover (tbc)

**University of Warwick Silicon Carbide Line Tour** - Our hosts at Warwick have kindly provided an excellent opportunity for delegates to have a window tour of what is the first prototype Silicon Carbide facility in the UK. Silicon Carbide is a fundamentally new technology which offers superior performance to current Power Electronic devices and would allow significant breakthrough in automotive vehicle performance.

**Networking Opportunities** - As always, there will be ample opportunity to network with a wide variety of organisations delegates from industry and academia and spanning the automotive electronics eco-systems from semiconductor equipment and materials through to major automotive companies.

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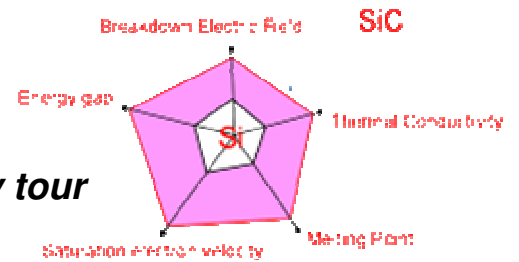
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### **Event Supported by**



## DAY 1 : Tuesday 22<sup>nd</sup> June



### **University of Warwick Silicon Carbide facility tour**

**09:00 Registration**

**09:30** Warwick University Silicon Carbide facility tour

Professor Phil Mawby,  
**University of Warwick**

**10:30** Transfer to Main Conference venue (IMC)

### ***A view of Automotive Development / Manufacture...***

**Venue:**

**University of Warwick International Manufacturing Centre(IMC)**



**10:30 Registration & Coffee**

**11:00 Welcome and Introduction**  
Introduction to Warwick

Paul Jarvie, **NMI**  
Professor Phil Mawby, **University of Warwick**

**11:20** Automotive manufacturing challenges

Mark Basten, **TATA Motors**

**11:50** Strategy for next generation Low Carbon vehicles

Paul Bostok, **Jaguar LandRover**

**12:20 Buffet Lunch & Tour of Exhibitions**

**13:20** Technical challenges for Low Carbon Vehicles

Ken Gregory, **TATA Motors**

**13:50** Low Carbon Vehicle Technology Project

John O'Connor, **University of Warwick**

**14:20 Coffee & Networking**

**14:50** Automotive Supply chain review

Mike Barrett, **SMMT**

**15:15** Mapping the Automotive Electronics eco-system in the UK

Paul Jarvie, **NMI**

**15:35 Panel session:** Low Carbon Vehicles – Reaching the tipping point?

**16:00 Wrap up** (Move to Exhibitor Hall / Further Networking)

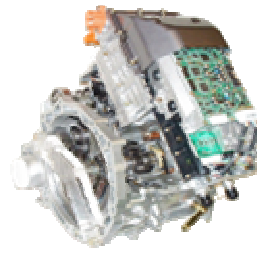
**19:00 Networking Dinner – Chancellors Suite ( Warwick Campus )**

**21:30 Close of DAY 1**



## DAY 2 – Wednesday 23<sup>rd</sup> June

### ***Drivetrain & Automotive Electronics***



**09:00 Registration and Refreshments**

#### ***SESSION 1 --- Drivetrain & Energy conversion***

- 09:45 Welcome & Introduction Paul Jarvie, **NMI**
- 10:00 Compact, high reliability DC-DC converters for Automotive applications Frank Warnes, **Ricardo**
- 10:30 Battery technology for Electric Vehicles Chris Vowles, **Axeon**
- 11:00 Refreshments**
- 11:20 Energy efficiency - It's all about the software! Chris Croft-White, **Synopsys**
- 11:50 The role of Power Electronics in reducing fuel consumption and emissions Andrew Stewart, **International Rectifier**
- 12:20 Buffet Lunch, Networking, Vehicle demonstrators, Table Top Exhibitions**

#### ***SESSION 2 ---- Automotive Electronics***

- 13:20 Advances in Body Electronics Andrew Birnie, **Freescale Semiconductor**
- 13:50 Design Tools For Electric & Hybrid Vehicle Design Phil Davies, **Mentor Graphics**
- 14:20 Bringing energy efficiency to hybrid/electric and conventional cars Paul Moody, **NXP UK**
- 14:50 Refreshments**
- 15:15 Vehicle Safety strategy Simon Brewerton, **Infineon**
- 15:45 Safe Launch – Qualification Strategy for Safety Critical Systems Thorsten Bucksch, **RoodMicrotec**
- 16:15 Panel Session 2: How can we enable the UK Auto Electronics Supply Chain?**
- 16:45 Wrap up / Event Close**

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 **freescale**  
semiconductor

**SYNOPSYS**  **NXP**  
Founded by Philips

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## About the NMI...

The NMI is a leading Trade Association for the UK Electronics industry. Our mission is

***To lead the development of a world-class sustainable UK-based microelectronics Systems Design, Device and Manufacturing community providing a compelling value-proposition for our members***

The NMI is a not-for-profit organisation funded by its members and includes leading companies, universities and stakeholder organisations across the diverse electronics community within the UK & Ireland.

### Key work streams include:

- Encouraging innovation, communication and business collaboration through sector networks.
- Supply chain efficiencies through benchmarking and best practice.
- Information provision.
- Representation to government, policy makers and regulators.
- Skills development, education and training.

See [www.nmi.org.uk](http://www.nmi.org.uk) and click on events for full schedule and latest information

**Note:** All Photographs in this document were provided courtesy of Freescale Semiconductor

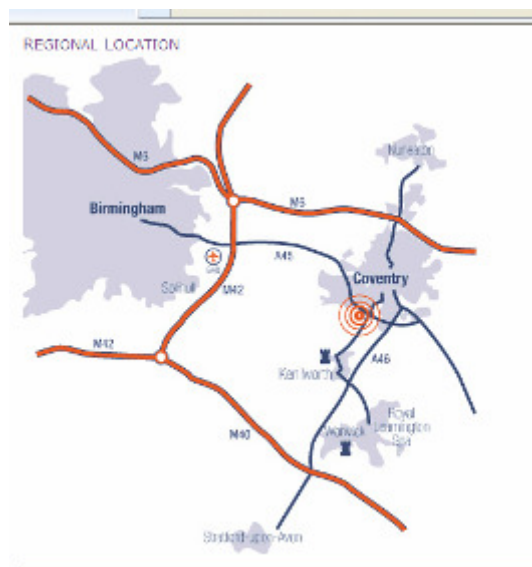
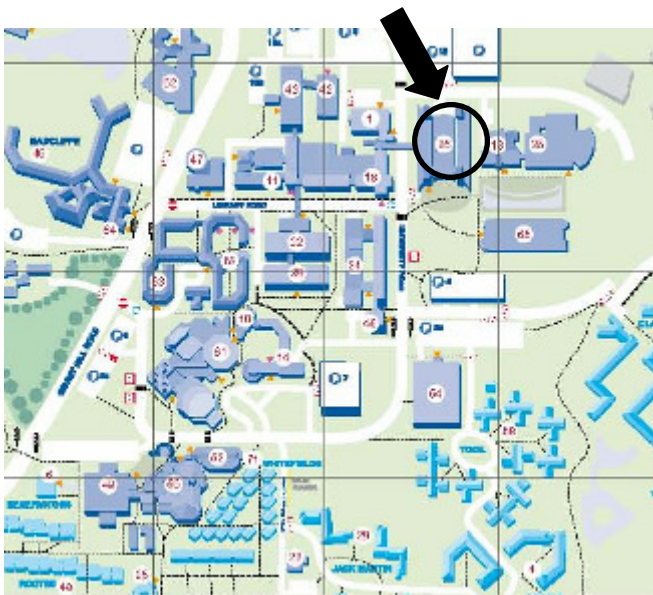
### Map and directions:

#### Warwick Address

International Manufacturing Centre,  
University of Warwick, Coventry CV4 7AL, UK  
Tel: +44 (0)24 7652 3523

[Click for Directions to Warwick...](#)

#### “International Manufacturing Centre”



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