



CONFERENCE 2023

Innovation Unleashed: Shaping the Future of Automotive Tech



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SECURE CONNECTIONS
FOR A SMARTER WORLD

Welcome to the 10th Annual AESIN Conference as we explore the next decade of technology innovation



Gunny Dhadyalla
AESIN Director

Stay Ahead

Immerse yourself in the latest industry trends, innovations, and challenges. Get the edge you need in this rapidly evolving field.

We have a fantastic line up of industry keynotes from JLR, The Canadian Automotive Parts Manufacturing Association (APMA), DER Industrial Centres, Automotive Council UK, covering everything from Innovation cycles, International supply chains, the future of Electrification and Connected and Automated Mobility.

Network Powerhouse

Connect with top-notch experts, engineers, and decision-makers. Forge collaborations that can shape your career and business. The close-knit AESIN community creates great opportunities to create collaborations, new business opportunities and make new friends.

Our **exhibitor hall** is ideal for speaking with conference sponsors, and networking over coffee, lunch, drinks and the evening reception.

Interactive Experience

Dive into insightful panels, and real-world case studies. Learn, discuss, and contribute to the industry's growth.

Soak up 6 technical sessions covering sensors, security & resilience, UX/UI, SDV, Systems Engineering and Research & Innovation.

Innovation Unleashed

Witness the future at our innovation showcase. Explore groundbreaking products, technologies, and partnerships in our exhibitor hall.



SAFEANDSECURE

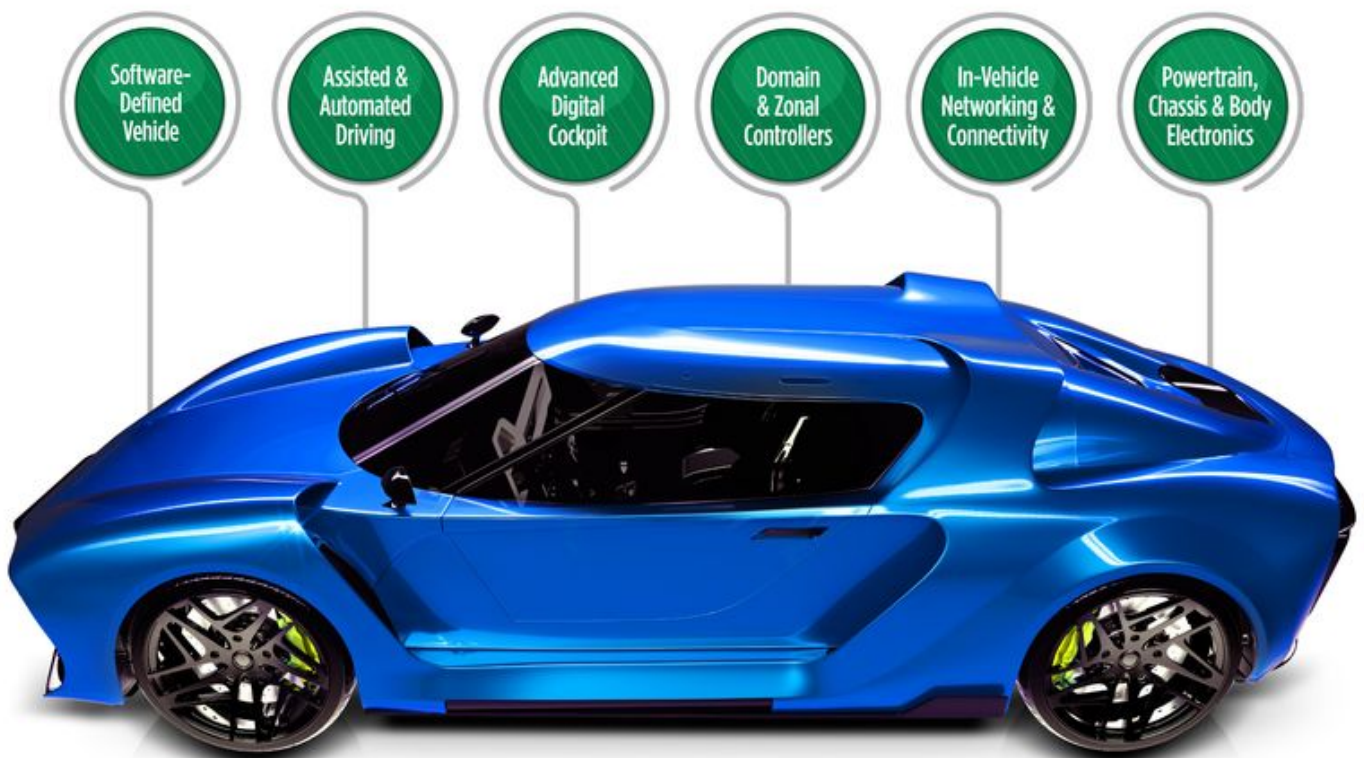
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Agenda

Morning Session

08:30-09:00 Registration

Welcome and Conference Opening

09:00-09:15 **Gunny Dhadyalla** (AESIN Director), **Dr Stephen Lambert** (AESIN Industry Chairman) and **Charles Sturman** (TechWorks CEO)

Keynote Speakers

09:15-09:25 **Professor Alex Mouzakitis**, Programme Director, JLR -

09:25-09:40 **Colin Dhillon**, CTO, APMA - 'Cybersecurity of EVs means a secure supply chain'

09:40-09:50 **Professor Matt Boyle**, Chair, DER-IC - "Leading the next generation of PE from lab to the assembly line"

09:55-10:05 **David Skipp**, Automotive Council UK CAM - "The UK Connected & Automated Mobility Mission"

10:05-10:30 **Keynote panel session** - The Future of Automotive Electrical and Electronics - Chaired by **Dr Stephen Lambert**

Break - Britannia Suite - 30 mins

Software Defined Vehicle Session

11:00-11:05 **Andrew Patterson**, Director, Silvaco, SDV Session Chair - "Introduction to the SDV SIG"

11:05-11:20 **Stephen Waldron**, Local Product Line Manager, Vector GB Ltd - "What's driving the Software Defined Vehicle?"

11:20-11:35 **Thomas Brown**, Senior Architect, NXP - "S32G3 and the Role of the Software-defined Vehicle Computer"

11:35-11:50 **Stephan Janouch**, Technical Marketing Director EMEA, Green Hills Software - "The Software-Defined Vehicle. What it is. Why security is everything"

SDV Panel Q&A

11:50:1155 Chaired by Andrew Patterson

Research & Innovation Panel Session

What is the future of automotive-enabled mobility?

11:55-12:30 Chaired by **Prof. Siraj Shaikh**, Swansea University with panelists **Gayatri Prakash** (Cloudbees),

Prof. Subramanian Ramamoorthy (Edinburgh University) and **George Economides** (DfT)

Lunch in the Britannia Suite (1 hour)

Agenda

Afternoon Session

Perception Sensors for CAM

13.30-13.35 **Dr Graham Lee**, WMG – “Introduction to the Perception Sensors SiG”

13.35-13.50 **Dr Ross Millar**, Royal Academy of Engineering Research Fellow & Lecturer, Glasgow University – “Si foundry compatible detectors for long range single-photon LIDAR”

13.50-14.05 **Dr. Gian Matteo Bianchi**, AAD V&V Ground Truth Technical Specialist, JLR

14.05-14.20 **Kashif Siddiq**, Founder & CEO, Oxford RF Solutions Ltd

Sensors Panel Session, Q&A

14:20-14:25 Chaired by **Dr Graham Lee**, WMG

Systems Engineering Panel Session

New business opportunities through greater vehicle/infrastructure integration

14:25-15:00 Chaired by **Alan Walker** (Director, SysElek) with panelists **Ian Pengelly** (4way Consulting), **Manish Kumar** (Intelligent Mobility at Amey), **Andy Graham**, (Transport Technology Forum) and **Peter Lockhart** (Systems Engineering Expert & SiG Chair.)

15:00-15:30 **Break – Britannia Suite – 30 mins**

User Experience / User Interface (UX/UI)

15.30-15.35 **Jim Nicholas**, CEO, Uniphy Limited, UX/UI Session Chair – “Introduction to the UX/UI SiG”

15.35-15.50 **Jonny Codling**, Ultraleap

15.50-16.05 **Michael Stellmacher** - Business Development Consultant for startups, targeting Automotive

16.05-16.20 TBC

UX/UI panel Q&A

16:20-16:30 Chaired by **Jim Nicholas**

Security & Resilience Panel Session

16.30-17.00 Chaired by **Peter Davies**, Technical Director, Thales with **Paul Wooderson**, Chief Engineer, Horiba MIRA

Conference Wrap Up with Gunny Dhadyalla & Guest speaker, David Byron

Drinks Reception & Evening Buffet Meal

17.35-19.30 Welcome by sponsor **Neil Dickins** (IC Resources)



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SCAN ME



Keynotes, speakers & panelists



Keynote Speaker

Professor Alex Mouzakitidis

Programme Director, Cyber Security, Jaguar Land Rover

Prof Alex Mouzakitidis is the Programme Director for Cyber Security at Jaguar Land Rover and Industrial Professor of Automotive Systems at WMG, University of Warwick. Prof Mouzakitidis has over 20 years of technological and leadership experience especially in the area of automotive systems. In his current role is responsible for the delivery of the Cyber Security Programme across all Jaguar Land Rover functions.

In his previous positions within JLR, Prof Mouzakitidis served as the Chief Technical Specialist for Systems Engineering, Head of Vehicle Engineering, Infotainment and Connectivity Research, Head of the Electrical, Electronics and Software Engineering Research and prior to that as the Head of Model-based Product Engineering.

Prof Mouzakitidis is a Chartered Engineer and a Fellow of the IET and InstMC engineering institutions. He is a member of the Industrial Advisory Panel of several international conferences, member of the InstMC System and Control Technology Panel, member of the InstMC National Council and a member of the InstMC Accreditation Panel. He has published over 130 scientific papers in international journals, book chapters and international conferences.

Prof Mouzakitidis holds a BSc (Hons) in Integrated Manufacturing Technology and a PhD in Machine Learning and Artificial Intelligence for Autonomous Vehicles from the University of Wales, an MSc in Systems and Control from Coventry University and an EngD in Automotive Embedded Software Development from The University of Warwick.

Colin Singh Dhillon

Chief Technical Officer, APMA

With over twenty-five years of automotive experience, working with global brands like GM, Toyota and Stellantis, and the holder of multiple patents, Colin Singh Dhillon is one of Canada's leading automotive innovation and design thinking authorities and a globally sought-after voice on the ever-changing future of mobility. Today, Colin is the Chief Technical Officer for Canada's Automotive Parts Manufacturers' Association and the Project, Technical and Innovation lead on Project Arrow: Canada's first electric concept/ prototype vehicle. His work in Connected, Autonomous, Security and Electrification of mobility (CASE) allows Colin to guide the Canadian automotive sector through the digital revolution. Outside of work, Colin is the #1 Best-selling author of the book, *The Three Houses, A Journey to a Better Life*.



Keynote Speaker



Vector Software-Defined Vehicle Symposium 2023

TWO DAY EVENT | 21-22 NOVEMBER 2023 | STUTTGART, GERMANY

21 November: Software Factory

22 November: Base Layer (In-Vehicle and Backend)

MAIN TOPICS:

- > Vehicle OS - Is there a common understanding among the industry?
- > Overall architecture, functional architecture, HPC modelling
- > Cloud-native development
- > Vehicle API
- > Service-Oriented Vehicle Diagnostics (SOVD)

We offer simultaneous translation English <-> German for all lectures.



Registration: vector.com/vvos23



Keynote Speaker

**Professor Matt Boyle OBE
Chair, Driving the Electric
Revolution Industrialisation
Centres**

Experienced Managing Director, CEO, NED and consultant with a demonstrated history of global success in Electrification across many sectors.



**Peter Davies
Technical Director, Thalesms
Engineering Expert**

Peter is Thales's leading expert on Cryptography in the UK responsible for providing cryptography and information security direction and expertise.



Keynote Speaker

**David Skipp
Chair, Connected &
Automated Mobility, UK
Automotive Council Director,
AV & Mobility Strategy, Ford
Motor Company**

David Skipp is Director, AV & Mobility Strategy, at Ford Motor Company. In this role since May 2020, David leads European strategy development for

Autonomous Vehicles (AV) and Mobility Solutions. David also works closely with a number of industry bodies, and is currently Chair of the Connected Autonomous Mobility (CAM) working group of UK Automotive Council. In his previous role, David was Director, Partnerships & Innovation, Ford Mobility, responsible for working with external partners to build a portfolio of opportunities to grow Mobility business solutions.

David has held a number of Propulsion Development, Vehicle Development, Research, and Strategic Planning roles in over 35 years at Ford Motor Company.



**Peter Lockhart
Systems Engineering Expert**

Peters career has covered a wide range of sensor, communication and internet research spanning both the civil and defence markets.



**Stephan Janouch
Royal Academy of
Engineering Research Fellow**

Ross's research is focused on the development of silicon compatible single photon avalanche diodes for quantum, sensing, and imaging applications.

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Stephen Waldron
Local Product Line
Manager, Vector GB

Steve Waldron is Local Product Line Manager at Vector GB, responsible for Vector's embedded software products and services within the UK and ROI



Thomas Brown
Senior Architect, NXP

Thomas is a Senior Solution Architect for NXP's Automotive Processing Business focusing on building solutions for the software-defined vehicle.



Dr Kashif Siddiq
Founder & CEO, Oxford RF
Solutions Ltd

Oxford RF Solutions Ltd is focusing on cutting edge commercial Radar technology solutions. He is the inventor of a novel solid-state 360-degree Radar architecture.



Dr Stephen Lambert
Head of Electrification at
McLaren Applied & AESIN
Chair

Dr Stephen Lambert received his Doctorate from the University of Warwick. he worked at Lotus Engineering, developing hybrid and electric demonstrator vehicles for a number of OEMs.



Jim Nicholas
CEO, Uniphy Limited

As well as being CEO of Uniphy Ltd, Jim is also Chairman of Codeplay a world-renowned software company. He has held a variety of executive positions. He was the CEO of MIPS Technologies, leading the transition out of Imagination Technologies.



Prof. Siraj Shaikh
Systems Security &
Computer Science,
Swansea University

His research interests lie at the intersection of cybersecurity, systems engineering and computer science addressing cyber-physical systems security for automotive and transport.

Samar, Development Engineer at dSPACE



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Paul Wooderson
Cybersecurity Principal Engineer, HORIBA MIRA

Paul is a Chartered Engineer with 18 years' experience in embedded systems security in the automotive and previously smartcard domains.



Andrew Patterson
Software engineering professional

Andrew spent over 25 years in the Design Automation and IT / Engineering markets culminating as a Business Development Director for Mentor Graphics'



Alan Walker
Founder & CEO, Oxford RF Solutions Ltd

Oxford RF Solutions Ltd is focusing on cutting edge commercial Radar technology solutions. He is the inventor of a novel solid-state 360-degree Radar architecture.



Dr Ross Millar
Royal Academy of Engineering Research Fellow

Ross's research is focused on the development of silicon compatible single photon avalanche diodes for quantum, sensing, and imaging applications.



Ian Pengelly
Lead, Intelligent Algorithm and Control group in ZF Race Engineering at ZF Hub UK

Ian is an established subject matter expert in the field of ITS, both within the UK and abroad having authored, contributed and presented papers at conferences.



Andy Graham
Managing Director at White Willow Consulting Ltd

Specialities: project management, proposal writing, requirements capture, connected vehicles business case, linking automotive, communications and roads people.

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Gear up for success with their Scaling Pit Stop, an exclusive opportunity for AESIN Conference attendees.

Find them at their booth to get practical advice on how to bridge the skills gap in automotive, navigate the candidate-driven market, and streamline your hiring process.

DISCOVER MORE



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Manish Kumar
Principal Consultant –
Intelligent Mobility at
Amey

Manish is currently working on various Intelligent mobility themes such as Connected Vehicles, Low emission mobility, Systems & operations,



Subramanian Ramamoorthy
Professor of Robot Learning
and Autonomy in the School of
Informatics, University of
Edinburgh

Subramanian's research focus is on robotics and machine learning , with particular emphasis on achieving safe and robust autonomy .



Gayatri Prakash
General Manager,
CloudBees

Gayatri currently leads all aspects of the CloudBees Compliance product, and focuses on working with helping customers successfully implement a next generation SDLC compliance ecosystem



David Bryon
Former Managing Director of Bmibaby / Media
Personality

David Bryon is the former Managing Director of Bmibaby, which grew to become one of the Europe's largest low cost airlines under his leadership. He now enjoys a successful media career that includes a highly popular after dinner comedy routine (based around flying), professional business speaking, awards evening host, conference facilitator, and TV presenting.

He is a regular guest on various national programmes including Radio Five Live, BBC Radio 2, BBC News 24, and Sky News. His client list is impressive, and includes Accenture, Barclays Bank, BP, Sun Microsystems, the FA, Chevron, Deutsche Bank, and the Kuwait National Government.

In 2000 David took-up a position with the airline BMI, and was part of the senior management team that set-up the low cost carrier bmibaby in 2002. He was Commercial Director for 18 months before being appointed Managing Director.

AESIN Conference | Celebrating 10 Years Innovation Unleashed: Shaping the Future of Automotive Tech



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The AESIN Innovation Award



The 2022 AESIN Innovation Award.

Winners: **EMU Technologies**

Sponsored by yieldHUB.

Pictured are Robert Niedzwiedz, Daniel Johnstone and David Hyland (Winners, EMU Technologies) and Gunny Dhadyalla (AESIN).

In today's intensely competitive Automotive market, it is absolutely essential that new innovative products enable end user requirements of functionality and safety within a tight window of market opportunity while meeting exceptionally high quality and reliability standards.

Award Criteria

This Award recognises new and innovative thinking and demonstrable success in:

- Exploiting a new and innovative technology
- Building strong links and approach to understand how the innovation meets the end user and market requirement
- Understanding the quality and reliability requirements and translating these into a robust qualification plan
- Delivery of the product on time achieving the expected field quality levels

The Award will therefore recognise the development of a product delivering the highest levels of customer satisfaction, quality and reliability through clear demonstration of best practice in product creation/innovation and qualification.

Supportive information should illustrate the following key points:

- Technology innovation summary
- Defined approach to understanding the market/user requirements
- Evidence of integration of quality & reliability into the product development cycle
- Evidence of outstanding delivery, performance and reliability in the field.

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