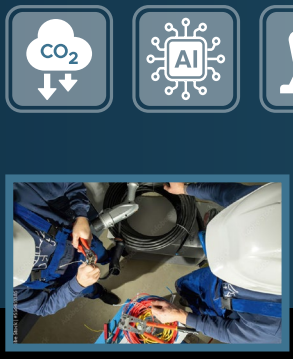
NWSLC

NORTH WARWICKSHIRE AND SOUTH LEICESTERSHIRE COLLEGE

Commercial Training Programme

Emerging Technologies

Power up your innovation with a selection of short courses or build a customised modular programme that fits your goals.









At the forefront of innovation and skills development, our training offer is designed to meet the evolving demands of modern industry. With a flexible, modular structure, learners and employers can select targeted modules that align with individual and organisational goals, enabling faster upskilling and creating a personalised learning journey.

Who is this for?

This modular training offer is designed for a broad range of participants, including:

- **Employers and industry partners** in sectors such as robotics, hydrogen, automation, and power generation.
- **Apprenticeship and workforce development leads** focused on enhancing and modernising existing programmes.
- **Adult learners and career changers** seeking to upskill in emerging and advanced technologies.
- **Funding Commissioners and Education stakeholders** involved in designing delivering and commissioning innovative curriculum pathways.

Our pillars of innovation



Mobility Decarbonisation

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AI and Digital Transformation

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Robotics and Automation

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How it works

Our approach is simple, flexible and built around your organisation's real business needs.

Step 1: Explore the courses and modules

Start by reviewing our range of business skills courses and modules. These cover key priority areas and can be tailored to different roles, sectors and levels. You simply tick the ones that are most relevant to your organisation's skills gaps, objectives or future plans.

Step 2: One-to-one consultation

You'll then meet 1:1 with a dedicated Curriculum Specialist. During this session, we take the time to understand your business, workforce challenges and goals in detail.

Step 3: Bespoke programme design

Based on your selected modules and consultation, we create a bespoke scheme of work. This includes:

- A tailored learning plan focused on your priorities.
- A realistic delivery schedule that fits around your business.
- Transparent costings based on your requirements.

Step 4: A tailored delivery package

The result is a fully customised training package designed specifically for your organisation, learners and outcomes, ready to deliver maximum impact.

Why choose a bespoke modular programme?

Off-the-shelf training courses are often generic and inflexible. A bespoke modular approach offers clear advantages:



Targeted learning
Focus only on the skills your business actually needs, avoiding unnecessary content.



Greater relevance
Examples, scenarios and activities can reflect your industry, roles and challenges.



Flexible delivery
Training can be scheduled around operational demands, minimising disruption.

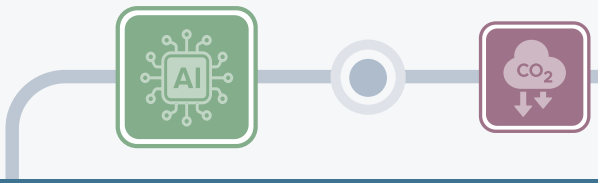


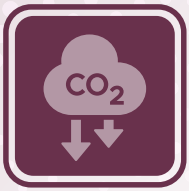
Better engagement and impact
Learners are more engaged when content is directly relevant to their day to day work.



Value for money
Invest in the areas that deliver the greatest return, rather than paying for a one-size-fits-all course.

By building your programme module by module, you gain a flexible, scalable solution that evolves with your business, supporting performance, productivity and growth.





Mobility Decarbonisation

Electricity and Electronics

TOPIC	MODULES	
Fundamentals of Electricity	Basic Electrical Concepts	☐
	Ohms Law and Power Calculations	☐
	AC v DC Electricity	☐
	Electrical Measurement Tools	☐
Electronic Components and Functions	Passive Components	☐
	Active Components	☐
	Sensors and Actuators	☐
Circuit Design and Analysis	Rectifiers and Inverters	☐
	DC-DC Converters	☐

Power Electronics and Motors

TOPIC	MODULES	
Introduction to Power Electronics	What are Power Electronics	☐
	Applications of Power Electronics	☐
Power Conversion Principles	Rectifiers and Inverters	☐
	DC-DC Converters	☐
Motors	Introduction to Electric Motors	☐
	Motor Principles and Operation	☐
	Motor Control Systems	☐

Electric Vehicles

TOPIC	MODULES	
EV Ownership	EV Ownership Essentials	☐
	EV Maintenance for Non-Technicians	☐
	EV Myths vs Facts	☐
	EV Driving Tips for Beginners	☐
	Charging Made Simple	☐

Electric Vehicle Supply Equipment

TOPIC	MODULES	
EVSE Awareness – Safety and Basics	EV Charging Safety Awareness	☐
	EV Charging Standards and Connector Types	☐
	Basic Fault Identification for EV Chargers	☐
	Customer Interaction and EV Charging Basics	☐
Future Trends in EV Charging	Vehicle-to-Grid (V2G) Basics	☐
	Smart Charging and Load Management Trends	☐
	Cybersecurity in EV Charging Networks	☐

High Voltage Batteries

TOPIC	MODULES	
Battery Manufacturing and Assembly	Cell to Module to Pack Assembly Techniques	☐
	Cell Production and Chemistry Basics	☐
	Battery Performance Metrics	☐
Battery Recycling and Second-Life Applications	Recycling Technologies and Processes	☐
	Second-Life Applications and Circular Economy	☐

Hydrogen

TOPIC	MODULES	
Hydrogen Fuel Cell Systems	Fuel Cell Principles and Performance	☐
	Fuel Cell System Components & Operation	☐
	Fuel Cell Maintenance Basics	☐
Hydrogen Storage	Compressed Gas Storage Systems	☐
	Cryogenic and Liquid Hydrogen Storage	☐
	Standards and Inspection for Hydrogen Storage	☐
Hydrogen Production	Hydrogen Production Methods	☐
	Electrolyser Operation Basics	☐
	Sustainable Hydrogen and Carbon Awareness	☐
Hydrogen Transportation	Hydrogen Supply and Distribution Basics	☐
	Hydrogen Refuelling Station Operations	☐
	Hydrogen Transport Regulations and Safety	☐
Safety and Risk Management	Hydrogen Safety Fundamentals	☐
	Risk Assessment and Emergency Response	☐
	Codes, Standards and Workplace Compliance	☐

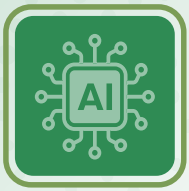
IMI Accredited Courses

COURSE	
IMI L1 Award in Electric/Hybrid Vehicle Awareness	☐
IMI Level 2 / 3 Combined Technical Specialist in Electric/ Hybrid Vehicle Routine Maintenance Activities	☐
IMI Level 4 Award in the Diagnosis, Testing and Repair of Electric/ Hybrid Vehicles and Components	☐
L2 Award in Electric/Hybrid Vehicle Hazard Management for Emergency and Recovery Personnel	☐
IMI Level 1 Award in Hydrogen Vehicle Awareness	☐
IMI Level 2 Technical Specialist in Hydrogen Vehicle Routine Maintenance Activities (Award)	☐
IMI Level 3 Technical Specialist in Hydrogen Fuel Cell Electric Vehicle System Repair and Replacement (Award)	☐

Non-accredited Short Courses

COURSE	DURATION	
EV Essentials*	4.5 days	☐
Electric Vehicle Charger Inspections*	4 days	☐
Power Electronics Machines and Drives – Fundamentals and Intermediate	3–5 days	☐
Software Defined Vehicles*	3 days	☐
High Voltage Battery Fundamental*	3 days	☐

*Funding available subject to eligibility.



AI and Digital Transformation

Artificial Intelligence (AI)

TOPIC	MODULES	
Theoretical AI	Introduction to AI	☐
	Responsibility and Ethics for AI	☐
	Copilot	☐
Practical AI	Prompts	☐
	Applications of AI	☐
	Development of an AI	☐
Implementation of AI	Analysis/Pains and Gains/ONA Consultation	☐

Software-Defined Vehicles

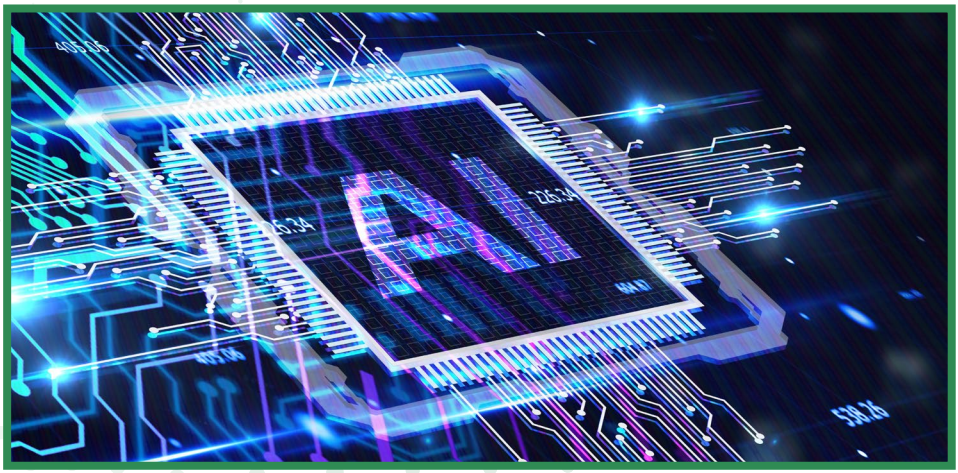
TOPIC	MODULES	
Introduction to Software-Defined Vehicles	Purpose and Overview	☐
	Key Concepts	☐
	Benefits and Challenges	☐
Vehicle Software Architecture	Architecture Overviews	☐
	Domain vs. Zonal Architectures	☐
	Real-Time Operating Systems (RTOS)	☐
Communication and Networking	In-Vehicle Networks	☐
	Middleware and Service-Oriented Architecture (SOA)	☐
	Time-Sensitive Networking (TSN)	☐

Software-Defined Vehicles (Con)

TOPIC	MODULES	
Connectivity and Cloud Integration	Telematics and Connectivity Modules	☐
	Cloud Services	☐
	Edge Computing	☐
Over-the-Air (OTA) Updates and Lifecycle Management	OTA Update Mechanisms	☐
	Version Control and Rollback	☐
	Continuous Integration/Continuous Deployment (CI/CD)	☐
Cybersecurity and Functional Safety	Threat Landscape	☐
	Security Standards and Protocols	☐
	Functional Safety Integration	☐

Non-accredited Short Courses

COURSE	DURATION	
Navigating AI for Business	12 weeks	☐



Robotics and Automation

Automation

TOPIC	MODULES	
Introduction to PLC's	PLC Definitions	☐
	PLC Architecture	☐
	Programming Methods: Ladder	☐
	Programming Methods: Structured Text	☐
	I/O Devices	☐
Controls Systems (Safety)	PLC's and Safety	☐
	Safety Standards and Regulations, Risk Assessments and Risk Management	☐
	Emergency Stops and Safety Interlocks	☐
	Safety, HMI's and Alarms	☐
Fault Finding/Diagnosis	Types of Faults	☐
	Fault Diagnosis Methods	☐



Software and Programming

TOPIC	MODULES	
Process Development	Intro to Process Development, Tools and Methods of Process Development	☐
	Workflow and Process Mapping	☐
	Integration of Automation	☐
	Compliance and Governance	☐
Programming Fundamentals	Introduction to Programming/Basic Syntax and Structure	☐
	Variables and Data Structures	☐
	Control Structures	☐
	Algorithms and Problem Solving	☐
Collaborative Technologies	Introduction to Collaborative, Software Development Software	☐
	Introduction to Version Control Techniques	☐
Machine Software Design Principles	Software Development Lifecycle	☐
	Programming Paradigms	☐
	Software Architecture	☐
	Design Patterns	☐
	Object-Oriented Design	☐

Non-accredited Short Courses

COURSE	DURATION	
Automated AI and Robotics*	3 days	☐

*Funding available subject to eligibility.

What companies have said about us:

> "It was great working with the team. Their flexibility of courses made a real difference and being able to tailor training around the practical realities of EV infrastructure, in-service testing, and emerging compliance expectations was exactly what EVCI-Global needed."

Craig Marsden - EVCI, EV Charger inspections course.

> "The hands-on exercises with the robotic arm were particularly valuable, bringing the learning to life and showing how simple commands can be used in different ways. As someone without a strong coding background, I found the clear, step-by-step approach especially helpful in understanding how the software and code are structured."

Olivia Woods - BOSCH, Automated AI and Robotics course.

Our partners:

evci

BENTLEY

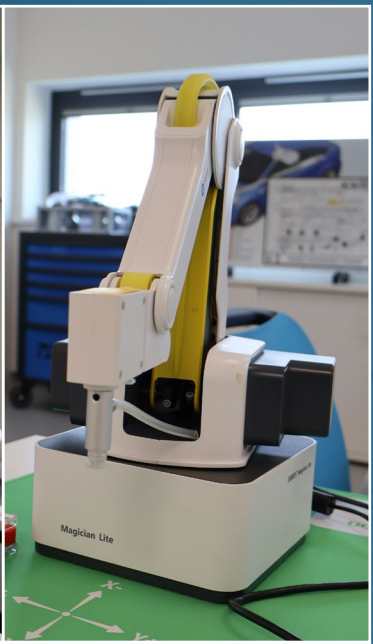
IMI APPROVED CENTRE

BOSCH

JLR

MADE IN THE UK MIDLANDS WINNER


SESSION 3
FUTURE TRENDS IN EV
CHARGING


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