



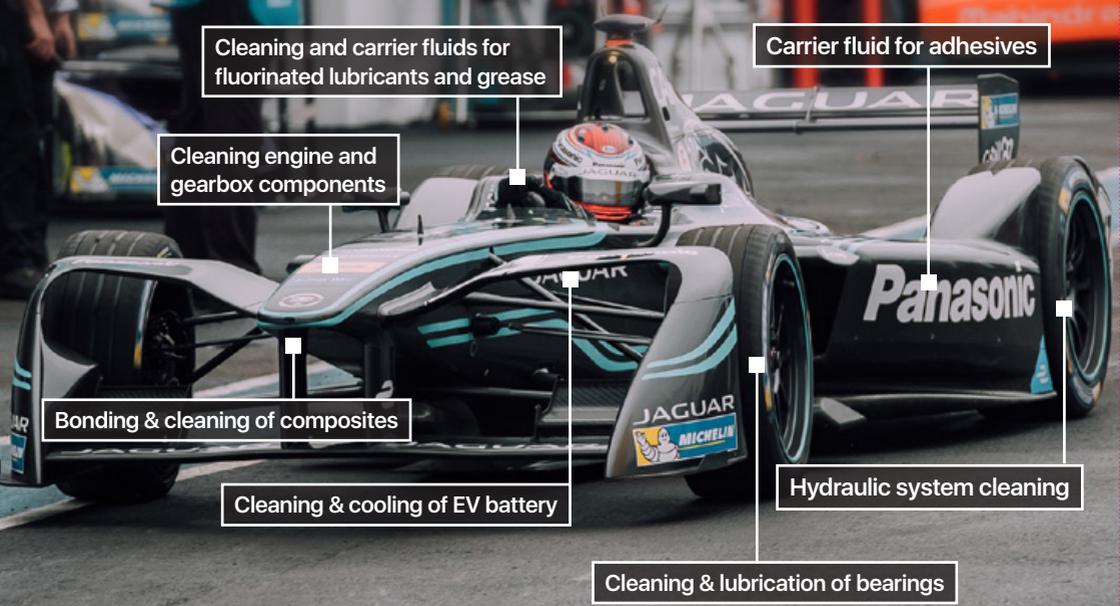
Battery Tech Expo

12 October 2021

Silverstone, The Wing, Silverstone Circuit NN12 8TN

BATTERY TECH EXPO 12 OCT – Come visit us at stand 46/59!

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WELCOME TO: Battery Tech Expo 2021



David Reeks
Managing Director, 10Four Media

Turn to page 14 & 15
for the expo floor plan

Events Team:



Rebekah Ford Helen Peden

The battery and energy storage supply chain sectors continue to develop at rapid pace with the UK investing heavily in the next generation of innovation.

Today, you'll have the chance to experience the latest technological developments. In both exhibition halls 3 and 4 you'll find leading exhibitors showcasing the very latest innovations.

During the day, industry experts will be presenting a variety of topics on the centre stage in Hall 3. Refreshments are located in Hall 4, offering you a chance to re-charge and network.

We wish you a productive day and look forward to seeing you back here at Silverstone, April 7th 2022!

D. Reeks

David Reeks



Speaker Agenda



COMPANY: HORIBA MIRA
SUBJECT: *Transportation Batteries– Real World Development & Validation*

Eddie Dewis is the xEV Components Solution Leader at HORIBA MIRA. After starting his career in the foundry industry progressing to be a Metallurgist and later Laboratory Manager, Eddie moved into component and materials testing for the automotive sector in the early nineties, being MD of an independent testing facility for many years before joining HORIBA MIRA in 2016.

09:15 - 09:35

Eddie Dewis



COMPANY: Camfil
SUBJECT: *Critical clean air solutions for battery research, development and manufacturing*

Chris is a Business Development Manager for Camfil Limited, and has over 28 years' global experience working in the field of air filtration within critical environments such as Semiconductor fabs, Biopharma facilities, Life Science Research and High Level Bio-containment Labs.

He is now bringing his experience with Camfils' more than 55 years of knowledge, experience and capabilities as a global leader in clean air solutions, to the e-mobility market where the need for extremely high air quality in many areas of research, development and manufacturing, is so critical to the processes, people and the environment, but which also requires the maximisation of energy efficiency and minimisation of its environmental impact.

09:40 - 10:00

Chris Hews



COMPANY: INNOVATE UK
SUBJECT: *Transition to NetZero- Sustainable Transport*

Oyebola is the Programme Manager- Batteries for the Faraday Battery Challenge where she supports in the management and delivery of the industrial R&D portfolio of over 80 projects. Prior to joining Innovate UK she worked as a Project Manager at Microsoft UK on their Microsoft dynamics CRM, managing the marketing project across 25 countries and in defining and executing a charter related to the different activities needed to execute the project. Her Background is Mathematics.

10:05 - 10:25

Oyebola Bello



COMPANY: UK Battery Industrialisation Centre
SUBJECT: *An Introduction to UK Battery Industrialisation Centre*

Andrew Britton first joined the national UK Battery Industrialisation Centre (UKBIC) in November 2019 as one of the Business Development Managers. A graduate of Preston Poly (now the University of Central Lancashire), he joined Leyland Trucks as a sales and marketing graduate trainee, before moving to purchasing with Leyland Engines. He later joined Perkins Engines as a senior buyer in 1987 but switched to sales in 1988.

A graduate of Preston Poly (now the University of Central Lancashire), he joined Leyland Trucks as a sales and marketing graduate trainee, before moving to purchasing with Leyland Engines. He later joined Perkins Engines as a senior buyer in 1987 but switched to sales in 1988.

Andrew then spent the next 15 years managing Perkins' licensees around the globe, which included managing sales in South America for three years working out of Miami. His final assignment with Perkins was as part of its consultancy division selling Computer Aided Engineering (CAE) to Automotive OEM's.

Andrew joined Millbrook Proving Ground (now UTAC) in 2006 looking after crash test and its component test laboratory.

10:30 - 10:50

Andrew Britton

Speaker Agenda



COMPANY: Qinetiq
SUBJECT: SUBERB calls for ultra-high power and fast charging

Gary has been active in battery R&D for more than 25 years, he is a chartered chemist and Fellow of the Royal Society of Chemistry and has published numerous papers and patents. His team is engaged in research and development of Li-ion cells and their application in military, space and commercial markets. Gary's team operates two facilities in this area; an R&D and prototype Li-ion production capability that for development, scale-up and proving of early-stage materials and technologies and a test & evaluation facility that undertakes regulatory and hazard testing of cells and batteries to commercial and military standards.

10:55 - 11:15

Dr. Gary Mapsted

QINETIQ



COMPANY: Rockfort Engineering
SUBJECT: Powertrain and vehicle optimisation in Formula E – stepping back to see the full picture

Angus has over 25 years' experience within automotive OEMs, Tier1s and start-ups as well as championship winning Formula 1 and Formula E teams. Throughout this time, Angus gained a strong and in-depth understanding of all areas of active vehicle and powertrain systems including electric propulsion systems. In 2013 this culminated in Angus delivering a world land speed record holding electric race car, the Drayson B12/69 EV. Angus founded his engineering consultancy, Rockfort Engineering Ltd, in 2013 and heads up the engineering and commercial activities of the company supported by a strong and highly experienced engineering and administration team.

11:20 - 11:40

Angus Lyon



COMPANY: Delta
SUBJECT: Race to Electrification – How Delta will accelerate Cosworth's Journey to Electrification

Simon Dowson is the Managing Director of Delta Cosworth. In 2005 Simon co-founded Delta, taking the business from a motorsport design consultancy to an electrification specialist, covering everything from battery system design and manufacture to full vehicle prototypes over the last 16 years. In March 2021 Delta was acquired by the Cosworth Group, adding electrification to 70 years of engineering excellence.

11:45 - 12:05

Simon Dowson



COMPANY: 3M
SUBJECT: 3M and Automotive Electrification: Enabling Tomorrow's Vehicles

Jeff is a project manager representing the 3M product range relevant to automotive electrification. Over 14 years at 3M he has performed roles within the automotive and aerospace sectors, having previously worked for a number of automotive brands where he was focussed on launching new materials technology. With Masters degrees in Materials Engineering and Engineering Quality, Jeff has applied his knowledge to specialise in adhesive bonding, light weighting and is now enjoying the challenges presented by electrification in its many forms.

12:10 - 12:30

Jeff Kapp



Speaker Agenda



12:45 - 13:00

Tony Wells



COMPANY: Merit

SUBJECT: Rethinking construction: designing and building battery manufacturing facilities using an offsite and zero carbon approach

Tony is Chief Executive of Merit, which he took over in 2002. Tony's focus on innovation, new technologies and productivity has resulted in the company designing and building the most complex of facilities with offsite techniques. Most recently, he has further developed a unique zero carbon emission based offsite manufacturing approach to deliver biopharma and other clean technology facilities including Government flagship projects in Li-ion battery manufacturing, cell and gene therapy and mRNA vaccines manufacturing. He started his career at British Steel Teesside executing projects on BOS/Concast and spent time on plant at Lakenby Plate Mill and South Bank Coke Ovens. Tony also led the Engineering and Maintenance teams at Fujitsu Newton Aycliffe for five years before leading the Client Facility team overseeing the £200m Siemens North Tyneside project. Tony also led Siemens global benchmarking and research review of wafer fabrication construction in Taiwan, US & EU; to develop the optimum future fabrication design.



13:05 - 13:25

Andreas Alexandrou



COMPANY: ZES Zimmer

SUBJECT: Measurements on Electric Drive Systems

Andreas Alexandrou is a Sales and Application Engineer at ZES ZIMMER Electronic Systems GmbH. He supports the European market, providing mainly technical expertise for power measurements for the test and evaluation of systems including electric powertrains, batteries, AC & DC chargers for electromobility, transformers, solar inverters etc. Masters degree in Power Electronics, Machines and Drives.



13:35 - 13:55

Dr. Ing. Jef Snoeys



COMPANY: FIKE

SUBJECT: Battery Energy Storage Protection

Dr. Jef Snoeys has been with Fike Corporation since 1993 and currently serves as the director of the Fike Explosion Protection Technology Group and the Fike Academy. In this role, Jef is the senior scientist who conducts applied research and is always up to date with competitive technologies and other technological issues related to explosion protection. Fike maintains a flow laboratory, an explosion test laboratory, and a remote sensing centre for explosions.



14:00 - 14:20

Dr. Ellie Galanis
BEng, Ph.D



COMPANY: Paragraf

SUBJECT: Graphene magnetic sensors for the isolated, local and non-destructive current density, and distribution analysis of battery cells, packs and modules.

Ellie was awarded a first-class degree in materials science and engineering and attained a Ph.D in the study of metallic crystal growth. She spent seven years on the research and development of novel materials; targeting and delivering on specific industrial demands.

With her expertise and diverse knowledge in novel materials and their applications, Ellie subsequently held university positions aimed at commercialising and generating industrial engagement with academic research; building lasting and mutually beneficial partnerships. Her magnetic materials research has led to her participation as an active member on the committee of the UK Magnetics Society, where she is currently serving as Chair.

For the last three years, she has worked at Paragraf as Business Developer and Product Owner for the Graphene Hall Sensor.

Speaker Agenda



14:25 - 14:45

Dan Bunting



COMPANY: *Advanced Propulsion Centre*
SUBJECT: *Opportunities for the UK Supply Chain in supporting the UK's Road to Zero.*

Dan is an Engineer with over 20 years of experience in the automotive and power generation industries.

Beginning his career in project management and manufacturing at GEC ALSTOM, Dan has also held senior positions in production at Automotive Products and purchasing and supply chain supply at Delphi Diesel Systems.

Prior to joining the Advanced Propulsion Centre, Dan was the Global Quality Manager at Delphi Automotive Aftermarket Division

At the APC, Dan was responsible for developing the Strategic Business Plan and is now working within the Business Development Team



14:50 - 15:10

Mike Valentine



COMPANY: *Jaguar Land Rover/Tri-wall*
SUBJECT: *LIBRIS Lithium-Ion Battery Research in Safety*

Mike Valentine Projects Lead for Tri-Wall UK. Working to improve the current understanding of Li-ion battery hazards, examine and challenge current transport methodologies, inform future transportation standards and improve knowledge within the energy storage industry around shipping best practices in an environmentally positive method.

Previously Director of ROV services & Sea-Urchin UK developing future advanced electric propulsion systems for underwater and hostile environments.

Mike has a wealth of experience within the automotive, marine and aviation industry, specialising in electrical propulsion with the market leaders such as Ford, Jaguar Land Rover, Airbus, developing innovative solutions.

Mike has spent the last two years in collaboration with JLR, 3M, HSE, Denchi, Potenza, WMG & Lifeline on the LIBRIS project, undertaking full ground-up research and development to create an evidence-based data set of battery hazards and mitigation methods that may best inform future regulations in transport.



15:15 - 15:35

Dr. Richard Boyd



COMPANY: *Altair*
SUBJECT: *Simulation Technology Facilitating Battery Pack Range Optimization*

Professional engineer with over 20 years' experience in the application of linear and non-linear structural analysis and optimisation across a wide variety of engineering sectors including aerospace, rail, defence and automotive. Deep domain knowledge of engineering solutions of a multi-disciplinary nature, supporting customer-driven design and test activities at various stages of product development, from concept design to final certification. Project managed several EU and UK government-funded collaborations, most recently £2.6million with Rolls-Royce to develop and deploy multi-physics optimisation solutions to UltraFan. This included the development, implementation, and application of Altair's electro-thermal battery simulation capability.



15:40 - 16:00

Mike Clausen



COMPANY: *CPI*
SUBJECT: *Overview of CPI Battery Technology and Capability*

Mike is the Head of Technology within the electronics business unit. He is responsible for providing technical leadership, developing technologies so that they can be translated to innovative products capable of commercialization in the future. He has 25 years' experience working in Research and Development, mass production and customer service environments. He has worked for medium size British companies and major international blue chip organisations such as Fujitsu Microelectronics, NXP, Filtronic Compound Semiconductors and RFMD. His knowledge base spans Operations management, process engineering and integration, technology development, yield enhancement and project management. He is currently responsible for developing the knowledge base and technology assets for the energy storage area.

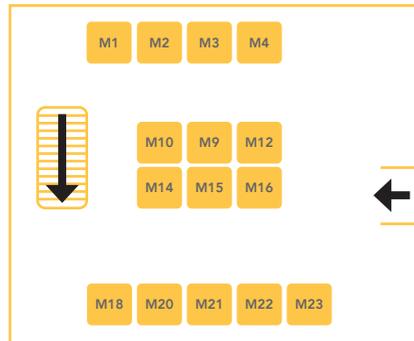
Floor Plan & Exhibitors

GRAND PLAN



Stand Number	Exhibitor
M1, M2	3M
48	a1-envirosciences GmbH
18	Accelonix
11	Accutronics
M12	Aceleron
49	Advanced Propulsion Centre UK
A13	Alexander Technologies Europe Ltd
40	Altair
21	Alvatek
M21	AMS Technologies
53	Anglia - Analog Devices
39	Anglia - Littlefuse IXYS
26	Anglia - Renesas
26	Anglia - Renesas
6	Asecos Limited
A01	Aspen Aerogels
50	Austin Consultants Ltd.

Hall 3 Mezzanine



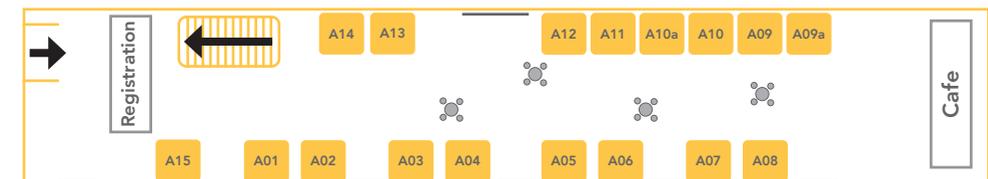
Hall 3



Stand Number	Exhibitor
47, 34	BINDER
43	Busch
8	Caltest Instruments Ltd.
9	Camfil Limited
54	Chasestead Ltd.
56-57	Connect 2 Cleanrooms Ltd.
A10a	Danecca Limited
10	Delta
58	DEWEsoft UK
24	Enix Power Solutions (Upergy Ltd.)
A14	EVerA Recruitment
12	Fike
51-52	Fisair & Merit
59, 46	Fraser Technologies
A03	Gipfel EDS Ltd
4	GYS
38	Hidden Analytical
M14	HORIBA MIRA
14-15	Huber
27	Humidity Solutions
37	Indestructible Paint Limited
A02	Inseto (UK) Limited
45	Julabo
M16	Lauda
A09a	Leybold UK Ltd.
36	Lincad
A15	Maccor Cellcare
32	MDL
5	MEP Technologies
M9	Monmouth Scientific

Stand Number	Exhibitor
41-42	Munters
A04	Nikon
28-29	Nordson Test & Inspection
3	Paragraf
M10	PI-KEM
A05	Pickering Interfaces
A08	Power Capacitors
55	Qinetiq
M20	RML Group
M23	Rockfort Engineering
13	Samuel Taylor
35	Schaltbau Machine Electrics
A09	SiTEST Ltd
A11	SPIROL
25	Stantronic
33	Strainsense
M22	Tappex
16	Technotrans
A10	Tektronix
22-23	Telonic Instruments Ltd.
A06	The Faraday Centre
44	Thermal Hazard Technology
A07	Thurlby Thandar Instruments Distribution
30-31	TR Fastenings Ltd.
M3	UL
19-20	Unitemp Ltd.
M15	Universal Science
M18	Vector GB Limited
M4	Yokogawa UK Limited
17	ZES Zimmer & AR UK

Hall 4



Exhibitors



At 3M's Transportation and Electronics business group, we are using the entire breadth of 3M technologies to improve automotive electrification and vehicle energy ecosystems. We leverage more than 100 years of automotive industry experience and combine this with extensive consumer electronics technologies, advanced materials technologies and energy industry expertise. All brought together to create custom solutions to help you envision the future of automotive electronics and build the most advanced and capable vehicles and roadways. From head-up displays to maximising Electric Vehicle (EV) battery range and performance, we're working directly with you to minimise the development cycle and create fully integrated and immersive solutions.

Visit us on stand: M1 & M2

3M

3M Centre

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a1-envirosciences – at the forefront of the supply and support of specialist chemical analysis instrumentation for over 50 years. As part of the European a1-envirosciences GmbH group, we sustain our reputation as a leading supplier of state-of-the-art analytical instrumentation internationally.

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We have a large customer knowledge base and can provide analytical systems such as: Karl Fischer moisture meters for battery research and production as well as combustion ion chromatography for Fluoride screening in battery recycling.

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**a1-envirosciences
GmbH**

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Warrington, WA3 7QN

www.a1-envirosciences.co.uk



Accelonix is a group of companies operating across Western Europe serving the electronics industry with specialist sales and support. Experts in electronics manufacturing, we offer a range of technologies perfectly suited to Battery Pack and Power Electronics manufacturing. This year, we will be showcasing two technology partners. Hesse GmbH Ultrasonic Wire Bonding and Smart Welding platforms providing next generation technologies for the industrialisation of electrical interconnection. Scheugenpflug AG Dispensing & Material handling, perfectly suited to the industrial dispensing of materials ranging from conformal coatings to highly viscous, abrasive pastes such as those used for thermal management.

Visit us on stand: 18

Accelonix Ltd.

Unit 2 McClintock Building,
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www.accelonix.co.uk



Accutronics is a leader in the design, development and manufacture of portable power solutions for medical, defence and security, test and instrumentation, robotics and other industrial applications where failure is not an option. Together with our parent company, Ultralife Corporation, we create high quality, high performance power solutions that meet demanding application requirements. OEMs worldwide depend on us to be a valued partner delivering both custom and pre-engineered batteries and chargers that are differentiated by innovation, time to market, performance, reliability and safety.

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Accutronics Ltd
(an Ultralife company)

Unit 20 Loomer Road,
Chesterton, Newcastle-under-
Lyme, Staffordshire, ST5 7LB

www.accutronics.com

Exhibitors



Aceleron is an award-winning clean technology company dedicated to eliminating battery waste in a world that is increasingly relying on batteries as a power source. Co-founded by Dr Amrit Chandan and Carlton Cummins, the company is responsible for building the world's first sustainable lithium-ion battery. Using a unique compression technology method, every part of the battery can be repaired, upgraded or replaced. The batteries have an endless lifespan which is kinder to the planet, keeps long term costs down and contributes to the circular economy. Aceleron empowers the global community by increasing access to energy storage solutions for everyone.

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Aceleron Ltd.

22 Gas Street, Birmingham,
B1 2JT, UK

www.aceleronenergy.com



Our job is to ensure the UK remains competitive in the research, development and production of low carbon automotive technologies, anchoring and growing UK capabilities. The Advanced Propulsion Centre funds a wide range of technologies. The key focus areas are: Thermal Propulsion Systems, Energy Storage & Energy Management, Electrics Machine & Power Electronics, Lightweight Vehicle & Powertrain Structures. Born out of the collaboration between UK Government and industry, our organisation aims to save 50 million tonnes of CO2, safeguard or create 30,000 jobs in the UK and make £1 billion of match funding, committed by industry and government, available to research and develop low carbon automotive technologies in the UK.

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Advanced Propulsion Centre UK

The Advanced Propulsion Centre UK Ltd, IIPSI Building, University Road, University of Warwick, Coventry, CV4 7AL

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We bring superior expertise to custom battery pack and battery charger design, as well as a wealth of knowledge in cell-level chemistries. From initial design development, to quality product delivery, we provide the industry's best in portable power solutions. Alexander Technologies provides integrated replacement power and charger solutions with minimal absolute failure rate for Land Mobile Radios, Barcode/ Portable Scanners, Portable Printers and Battery Charger/Conditioners manufactured and engineered to exceed industry standards in product quality and reliability.

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www.alexandertechnologies.com



Altair

Visit us on stand: 40

Altair

Altair, Imperial House, Holly Walk, Royal Leamington Spa, Warwickshire, CV32 4JG

www.uk.altair.com

Altair is a leading provider of enterprise-class engineering software enabling innovation, reduced development times, and lower costs from concept design to in-service operation. Our simulation-driven approach to innovation is powered by our integrated suite of software which optimizes design performance across multiple disciplines encompassing structures, motion, fluids, thermal management, electromagnetics, system modelling and embedded systems. Altair's simulation solutions for batteries can analyse and optimise thermal management at the individual cell, module and full pack levels; as well as assess the pack for a full range of crash and impact scenarios to enable the development of safer products.

Exhibitors



Alvatek distributes and supports a range of electrochemistry research equipment including test, research and manufacturing equipment for battery and energy storage applications. By providing our customers with expert advice and timely high-quality support, our aim is to ensure that our customers are happy to recommend Alvatek to their peers. At Power Electronics Expo Alvatek will be taking the opportunity to launch a new line of AC power sources from N4L. These sources are perfect for applications including testing and research of renewable energy products. Leading brands represented include Ivium Technologies, BaSyTec, Scribner Associates, N4L, Novonix, Hohsen, PalmSens, BASi, EL-Cell, and more.

Visit us on stand: 21

Alvatek Ltd.

Unit 48, Basepoint Business Centre,
Abbey Park Industrial Estate, Premier
Way, Romsey, Hampshire, SO51 9AQ
www.alvatek.co.uk



AMS Technologies Ltd is already working with key players in the automotive industry in the fast-moving development of battery powered vehicles, advising on battery cooling and thermal analysis. Our technical sales team will be available to answer questions and discuss your requirements. In addition to our thermal capabilities we will also be exhibiting an example of a Sensuron fiberoptic sensing platform that enables engineers to collect and analyze thermal and structural data based on minute changes in thousands of points of light in order to measure the integrity of materials and improve the performance of engineering innovations.

Visit us on stand: M21

AMS Technologies Ltd.

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Daventry, NN11 8EA
www.amstechnologies.com



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Analog Devices

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THURSDAY 7TH APRIL 2022, SILVERSTONE

 **Battery
Tech Expo**

Exhibitors



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Ixys / Anglia

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Renesas Electronics Corporation delivers trusted embedded design innovation with complete semiconductor solutions that enable billions of connected, intelligent devices to enhance the way people work and live. A global leader in microcontrollers, analog, power, and SoC products, Renesas provides comprehensive solutions for a broad range of automotive, industrial, home electronics, office automation, and information communication technology applications that help shape a limitless future.

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Exhibitors

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Visit us on stand: A01

Aspen Aerogels, Inc.

30 Forbes Road, Bldg B,
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www.aerogel.com/PyroThin

AUSTIN — CONSULTANTS —

Austin Consultants are systems integrators that provide bespoke hardware engineering, software development and data science services, for a wide range of automated data acquisition, test, measurement, control and IIoT applications. We provide expertise including high-speed real-time deterministic embedded development.

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BINDER GmbH

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www.binder-world.com

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We pride ourselves in having the most established and comprehensive vacuum service solutions throughout the UK, with a network of Busch service engineers providing on-site support to our customers 24/7.

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Visit us on stand: 43

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Hortonwood 30,
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www.buschvacuum.com

Exhibitors



Caltest Instruments offer high level technical/ applications support, an extensive range of sale, demo and rental equipment and a comprehensive service/ UKAS calibration department.

Caltest proudly represent a number of industry leading manufacturers.

Visit us on stand: 08

Caltest Instruments Ltd.

Unit 2 Viceroy Court, Bedford Road, Petersfield, Hampshire GU32 3LJ

www.caltest.co.uk



Camfil, as a global leader in air filters and clean air solutions, has for more than half a century been helping people breathe cleaner air. As a leading manufacturer of premium clean air solutions, we provide industrial and commercial systems for air filtration and air pollution control that improve personnel and equipment productivity, minimise energy use and benefit human health and the environment.

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We specialise in low volume pressed metal parts and fabrications. We have served a wide range of industry sectors that includes automotive, aerospace and defence for nearly 60 years. We produce our own low-cost tooling inhouse and have state of the art 5 axis lasers for cutting final parts. We are currently engaged in a number of electric vehicle programs working directly for the OEMs. Parts include pressed battery covers and components, fabricated extrusions and pressings for the battery area and light-weight chassis parts for the conversion form IC to EV. We have recently invested in a new fibre laser that will enable us to develop and manufacture copper busbars from prototype to production at extremely competitive rates. One-offs to substantial projects are all accommodated and managed in a professional manner from our Hertfordshire site. We have both AS9100D and BS EN ISO 9001:2015 accreditation and all parts are backed by our comprehensive guarantee for both quality and delivery.

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Icknield Way, Letchworth, Herts, SG6 1JX

www.chasestead.co.uk



Connect 2 Cleanrooms is an award winning industry leader, supporting the cleanroom lifecycle both in the UK and internationally across all sectors. Established in 2002, the company designs and manufacture hardwall, softwall and panel system cleanrooms in-house, as well as providing cleanroom validation and cleanroom training services. Tight specifications are applied for temperature and humidity control environments enabling precision, sensitive product production and operator comfort. Its consumables division, Cleanroomshop.com, supplies a full range of consumables, equipment and furniture including ESD and anti-static control to the cleanroom industry worldwide. Protecting critical environments whilst creating a journey of development. Stand 56 & 57

Visit us on stand: 56 & 57

Connect 2 Cleanrooms Ltd.

Riverside House, Forge Lane, Halton, Lancaster UK LA2 6RH

www.connect2cleanrooms.com

Exhibitors



Danecca

Danecca was founded by those responsible for one of the most competent EV batteries developed to date. Where the textbook fails to guide you, we are here to develop your project, from concept through to industrialisation.

Vision: To build a world where the environment isn't sacrificed for energy security.

Mission: To remove barriers and inspire change towards the adoption of sustainable energy solutions.

Visit us on stand: A10a

Danecca Limited

1142 Silverstone Park,
Buckingham Road, Silverstone,
Northamptonshire NN12 8FU

www.danecca.com

We have hard earned experience in this most arduous of environments and will deliver a battery into your project with the highest of engineering discipline.

Whether your project is in Automotive, Aerospace, Off Highway, Grid, Marine or anywhere else requiring engineered energy storage we have the knowledge and experience to help.



delta

A Cosworth Company

Delta has over fifteen years of experience specialising in full vehicle prototyping, hybrid solutions, battery and control systems. Today, as well as full vehicle prototyping, our four main development streams are: battery systems, control systems, electric and hybrid drivetrains and full vehicle programmes. Delta were recently acquired by Cosworth and we are now known as Delta Cosworth. We help meet the engineering challenges of the 21st century: efficiency, sustainability and mobility.

Visit us on stand: 10

Delta Cosworth

Unit 9 Silverstone Tech Park,
Silverstone Circuit, Silverstone,
NN12 8GX

www.delta-cosworth.com



Visit us on stand: 58

DEWESoft UK

1 Appley Court, Appley Wood
Corner, Haynes, Bedfordshire
MK45 3QQ

www.dewesoft.com

DEWESoft manufactures a wide range of measurement solutions covering measurement applications across all industries and covering multiple measurement disciplines in one solution. DEWESoft provides flexible, modular and rugged Data Acquisition hardware combined with a versatile turn key software package for Data Recording and Analysis serving applications such as E-Mobility and Power Analysis, Road Load Data recording, NVH, Frequency Analysis and many more. Our Instruments are capable of capturing data from any type of sensor including state-of-the-art integrated High Accuracy current and voltage sensing solutions, with seamless integration with DewesoftX software, XCP, or OPC-UA.



Visit us on stand: 24

Enix Power Solutions

Unit 2 Focus Park,
Ashbourne Way, Solihull,
West Midlands, B90 4QU
www.enix-power-solutions.co.uk

With over 30 years of experience in the manufacturing and distribution of batteries, Enix Power Solutions has diversified into new areas of technology. Our global aim is to become a complete battery solution provider. Our in house design technicians are on hand to find the best solution to meet clients specific product requirements across all chemistries and design constraints. Whether client's needs are simple or complex we can design a custom battery pack that is fit for purpose and commercially beneficial. We identify the correct battery technology and configurations to ensure the battery is physically and electrically suitable, with appropriate safety and electronic circuits.

Exhibitors



EVERA
RECRUITMENT

Visit us on stand: A14

EVERA Recruitment

Pure Offices, Tournament
Fields, Warwick, CV34 6RG
www.everarecruitment.com

Europe's only dedicated Battery & EV recruiter.



Visit us on stand: 12

Fike

35 Earl St, Maidstone
ME14 1PF
www.fike.co.uk

Fike Corporation, founded in 1945 and headquartered in Blue Springs, Missouri, USA, is a globally recognised supplier of precision-engineered products for Fortune 500 companies and businesses around the world.

Fike is the experienced, trusted expert in explosion protection, fire alarm systems and fire suppression solutions and rupture disc technologies. In addition to its manufacturing facilities in the United States, Belgium, Wales, Canada and India, Fike has sales and service offices throughout North and South America, Europe, Asia and the Middle East.

Because so much is at stake™ our highly skilled workforce of more than 1,000 people worldwide combined with a personalized customer service experience provide clients peace of mind from experiencing consequences of serious financial loss or a devastating disaster.



Visit us on stand: 51 & 52

Merit & Fisair

3 Silverton Court,
Northumberland Business Park,
Cramlington, Northumberland
NE23 7RY
www.merit.co.uk

Merit uses innovation and knowledge to deliver complex, controlled and clean environments for clients such as UKBIC, CGT, GSK and Rolls-Royce. Through offsite construction techniques, we can offer clients reduced carbon footprint, improved safety, cost savings and schedule reductions. Merit's partnership with strategic suppliers provides a truly expert solution. Our collaboration with Fisair, who manufacture humidity control equipment and components for the worldwide market, represents a highly skilled and dedicated international team. Visit stands 51 and 52 to hear how Merit and Fisair are applying innovative solutions to build the clean and dry rooms for UKBIC's new Lithium-ion battery production facility.



Visit us on stand: 46 & 59

Fraser Technologies

24 Grange Road, Houstoun
Industrial Estate, Livingston
EH54 5DE
www.frasertech.co.uk

Fraser Technologies are proud to have supported the cleaning and speciality fluid industry for last 50 years. We continue to offer technological advances, adapt to legislative changes and embrace environmental challenges and are now considered one of the leaders within the Precision Cleaning industry. We offer a wide range of new generation chemistries, including replacements solutions for the likes of Trike and nPB and a large variety of solvent and aqueous cleaning systems. Companies from the aerospace, electronics and automotive industries have chosen to work with us because of our expert knowledge, superior trial facilities and our first class after sales service.

We are very excited to launch our new speciality products into the Battery Industry. The Opteon™ range of speciality products are well known for their thermal management and dielectric capabilities and have been constantly adapted to meet industry demand, including ultra-low environmental impact, extremely safe, non-flammable, no health risks and proven replacements solutions for HFC's, PFC's and HFE's. Please come and visit us on stand 46/59 to find out more about our revolutionary products.

Exhibitors



Visit us on stand: A03

Gipfel EDS Ltd.

19 The Square,
Retford, DN22 6DQ
www.gipfel.tech

Gipfel EDS Ltd provides a highly professional power electronics design and intermittent support service. We can offer flexible electronics design and troubleshooting expertise at short notice and with competitive prices. Whether it be a simple design review, EMC debugging, PCB design, or becoming a design partner, we are always happy to help. Our design team has many years of experience designing high efficiency power converters of all topologies, inverters, battery chargers and battery management units in the consumer and automotive industries.



Visit us on stand: 38

Hiden Analytical Ltd.

420 Europa Boulevard,
Warrington, WA5 7UN, UK
www.hidenanalytical.com

For more than 35 years, Hiden Analytical has been a global leader in the design and manufacture of scientific instruments for research, development and production applications. In vacuum, gas, surface and plasma processes our quadrupole mass spectrometers have gained worldwide recognition for their precision and outstanding performance. Our product range for Fuel Cell Studies includes:

- Solutions for Dissolved Gas Analysis and Off-gas Analysis in Electrochemistry
- Mass Spectrometer Gas Analysers with Real-time Gas/Vapour Analysis for Reaction Studies
- Membrane Inlet Mass Spectrometers
- SIMS Surface Analysis for Characterisation of Active Surfaces
- UHV TPD Workstation System for Studying Adsorption/Desorption Mechanisms



INVEST IN THE FUTURE

Visit us on stand: 04

GYS Ltd.

Unit 3 Great Central Way,
Rugby, Warwickshire CV21 3XH
www.gys-welding.com

BATTERY CHARGING

GYS are the largest manufacturer of automotive battery maintenance products in Europe working with many of the world's car manufacturers.

Now - GYS is launching new battery products suited for a wide range of non-automotive applications.

- 6V-48V
- 1A to 400A
- Connected Charging
- Traceability
- Bar Code Reader
- Printer / Keyboard
- Sound and Light
- Programmable Charging Curves
- Pb /Lithium LiFePO4 / Li-ion
- Bespoke Solutions

With a major R&D investment, GYS has created a range of high and lower power inverter chargers, flexible and powerful software with connectivity and customisation options.



Visit us on stand: M14

HORIBA MIRA

Watling Street, Nuneaton,
Warks, CV10 0TU
www.horiba-mira.com

HORIBA MIRA, the global provider of automotive engineering, research and test services, has been at the forefront of hybrid and electric vehicle systems solutions for over ten years. Its experts work with customers in the latest areas of vehicle electrification development, providing engineering and test consultancy from concept design through to final validation, to propel customers' energy-efficient electric and hybrid vehicle products into the marketplace.

At Battery Tech Expo 2021, HORIBA MIRA experts will present real-world development and validation solutions for transportation batteries, to ensure they are efficient, safe and robust for passenger, commercial and off-highway vehicles.

Exhibitors



Peter Huber Kältemaschinenbau was established in 1968 by Peter Huber as one of the first enterprises specialised in the development and construction of temperature control Systems.

We are the technology leader for high precision thermoregulation solutions in research and industry. Our products ensure precise temperature control in laboratories, pilot plants and production processes throughout the whole world – from -125 °C to +425 °C.

Visit us on stand: 14 & 15

Huber UK Temperature Control Ltd.

Unit A & D, Heage Road Industrial Estate, Ripley, Derbyshire, DE5 3GH

www.huber-online.com

Besides dynamic temperature control systems we develop and produce chillers as well as classic heating and cooling circulators. Typical applications can be found in the automotive industry, chemical and pharmaceutical industries, aerospace engineering and medical industry.



Humidity Solutions is the UK's leading independent specialist in humidity control.

For lithium-ion battery production we offer full turnkey solutions and support, including design, installation and maintenance of dehumidification systems for a range of applications including car battery production, pre-production and R & D facilities.

These systems offer exceptional reliability, low energy consumption and operating costs, are easy to configure to the specialist requirements of lithium-ion manufacturing - even down to as low as -74.5 celsius dew point, and are available with advanced monitoring and control systems for maximum flexibility.

Visit our specialists on stand 27 to find out how we can help you.

Visit us on stand: 27

Humidity Solutions Ltd.

Humidity House, 1140a Axis, Cleeve Road, Leatherhead, Surrey KT22 7ND

www.humiditysolutions.co.uk



Indestructible Paint Ltd are manufacturers and suppliers of high-performance coatings for use within the aerospace, defence and allied industries, particularly the aero engine, aero engineering and ancillary sectors. Our coatings are engineered to meet the very exacting standards in corrosion protection and chemical resistance required in these industry sectors.

Visit us on stand: 37

Indestructible Paint Ltd.

16-25 Pentos Drive, Birmingham, B11 3TA
www.indestructible.co.uk



Inseto are technical specialist providing equipment and materials across the entire battery fabrication process.

Our equipment solutions include interconnection systems and materials for ultrasonic wire bonding of battery packs, plus torsional welding and mechanical testing of welds. We also provide process support and wire bonding training classes to help customers implement and characterise this flexible technology into their production process.

Other products include slot die coating systems for coating electrodes onto conductive foils, plus adhesives for weld sealing, heat-sink bonding, and encapsulation of electronic components.

Visit us on stand: A02

Inseto

Unit 25 Focus Way, Andover SP10 5NY
www.inseto.co.uk

Exhibitors



JULABO has stood for professional temperature control for more than 50 years. We have customers working with our high-quality temperature control solutions in automotive component testing, benefiting from the exceptional JULABO quality.

Our decades of experience and highly dynamic temperature control systems allow us to easily cover all the requirements for environmental simulation during material testing, quality assurance, and stress and load testing.

Visit us on stand: 45

JULABO UK Ltd.

Unit 7, Casterton Road
Business Park, Old Great
North Road, Little Casterton,
Stamford PE9 4EJ
www.julabo.com/en-gb



LAUDA is a solution provider for process cooling, thermal management and viscosity measurement to the automotive and aerospace industry. Our products are supported by the knowledge gained through many successful projects from the cooling of dynamometer engine test beds to the precise viscosity measurement of lubricants, oils and fuels. Over the years we have successfully fulfilled the needs of many research establishments, providing both cooling and heating solutions, covering a range of -100 °C to 320 °C for a wide range of test apparatus.

Visit us on stand: M16

LAUDA Technology Limited

Unit 12, Tinwell Business
Park, Steadfold Lane, Tinwell,
Stamford, PE9 3UN
www.lauda-technology.co.uk



Vacuum plays an essential role in the battery cell production and Leybold offers perfect products for each step of the Li-ion cell production process, with detailed application and product expertise and know-how. We understand the importance of high reliable performance, combined with low cost of ownership and minimal environmental impact, and have developed vacuum products such as the VARODRY, SCREWLINE and DRYVAC which bring real value to our customers at every step of Li-ion battery cell production. Our recently introduced PHOENIX leak detector is ideal for leak detection accuracy in EOL testing for safe battery cells.

Visit us on stand: A09a

Leybold UK Ltd.

Unit 9 Silverglade Business
Park, Leatherhead Road,
Chessington, KT9 2QL
www.leybold.com



Lincad is a leading expert in the design and manufacture of lithium-ion batteries, chargers and associated products for a range of applications across a number of different sectors. With a heritage spanning more than three decades in the defence and security sectors, Lincad has particular expertise in the development of reliable, ruggedized product with high environmental, thermal and electromagnetic performance.

With a dedicated team of engineers, all product is designed and manufactured in-house at Lincad's facility in Ash Vale, Surrey. Lincad is ISO 9001 and TickITplus accredited and works closely with its customers to meet their power management needs.

Visit us on stand: 36

Lincad Ltd.

331 Lysons Avenue,
Ash vale, GU12 5QF
www.lincad.co.uk

Exhibitors



31st March 2022

at **International Centre, Telford**

find out more at: www.hydrogentechexpo.com



Maccor Inc. designs and manufactures cell and battery test equipment used for material and cell research & development, as well as battery application testing, quality assurance and many other applications requiring precise control and measurement of current and voltage. Maccor has been in business for over 30 years and has sold thousands upon thousands of systems worldwide. The most comprehensive software and extensive support of our products has helped maintain Maccor at the forefront of the industry.

Visit us on stand: A15

Maccor

Maccor European Sales & Service Centre, C/O CellCare Technologies Limited, Unit A2, Airfield Business Park, Harrison Road, Market Harborough, Leicestershire LE16 7UL
www.maccor.com



MDL Technologies provides specialist electronic test equipment and consultancy to the UK and Ireland, working in partnership with market leading global manufactures such as Chroma ATE Inc., Hioki, Typhoon HIL, etc.

We will be showcasing EVSE (Electric Vehicle Supply Equipment) and EV (Electric Vehicle) Test Solutions for AC Charger Stations Level 1 & 2 and DC Charger Stations from Chroma ATE Inc. as well as Battery

Management Systems (BMS), Battery Cell, Module and Pack Test Solutions from Hioki.

Applications include:

- *Regenerative Battery Test Solutions – Cell, Module and Pack*
- *Battery Impedance, Resistance, Insulation and Data Logging*
- *EV Motor Test Solutions including Power Analysis*
- *Electric Vehicle Test Solutions*
- *Hardware in the Loop Simulation*

Visit us on stand: 32

MDL Technologies Limited

Unit 11, Devonshire Business Centre, Works Road, Letchworth, Herts, SG6 1GJ
www.mdltechnologies.co.uk



MEP Technologies specialises in the design and manufacture of battery systems. Using a collaborative, consultative approach, MEP Technologies engages with low volume, high-tech production, but has the capacity to rapidly increase product output when needed.

Applications for battery technology are endless, and our industry expertise means we are able to provide sustainable systems to a wide range of industries including e-mobility, small power pack applications such as drones, automotive retrofitting, commercial vehicles, and much more. We can power your project.

Visit us on stand: 05

MEP Technologies Ltd.

Michelin Scotland Innovation Parc, Baldovie Road Dundee DD4 8UQ
www.meptec.co.uk

Exhibitors

Monmouth Scientific

Monmouth Scientific Limited, established in 2004, are one of the UK's leading designers, manufacturers and suppliers of Clean Air Solutions.

From our UK Headquarters in Somerset & UK Northern Base in Cheshire, we specialise in Recirculating Filtration and Ducted Fume Cupboard installations, alongside Laminar Flow and Biological Safety Cabinets. Our experienced team also offer a wide range of Cleanrooms from supply only through to full turnkey solutions.

Visit us on stand: 43

Monmouth Scientific

Unit 5-6 Kilnside Industrial Estate, East Quay, Bridgwater TA6 4DB

www.monmouthscientific.co.uk

 **Munters**
Your Perfect Climate

Munters, global leaders in energy efficient climate control, are experts in the design, manufacture, supply and installation of turnkey battery dry room climate control systems to achieve ultra-low dew points of less than 1% humidity ($\leq -40^{\circ}\text{C}$ Dew-point). Our latest innovation, Munters DSS Pro represents an evolutionary leap forward with performance upgrades such as custom configured controls, as well as our new AirPro casing that significantly improves durability, reduces air leakage, and reduces energy consumption. DSS Pro is designed to meet the needs of advanced battery manufacturers' requirements while consuming up to 30% less energy with Munters Green PowerPurge™ desiccant rotor technology.

Visit us on stand: 41 & 42

Munters Ltd.

Knowledge Centre, Wyboston Lakes, Wyboston, Bedfordshire, MK44 3BY

www.munters.co.uk/batterydryrooms



Nikon Metrology offers the broadest range of metrology solutions for applications ranging from miniature electronics to the largest aircrafts. Nikon Metrology's innovative measuring and precision instruments contribute to a high performance design-through-manufacturing process that allows manufacturers to deliver premium quality products in a shorter time

Visit us on stand: A04

Nikon Metrology UK Ltd.

Building 424 Argosy Road, East Midlands Airport
www.nikonmetrology.com

 **Nordson**
ELECTRONICS SOLUTIONS

DAGE, MATRIX and SONOSCAN, part of Nordson TEST & INSPECTION, market leaders in the Electronics industry, have a wide variety of Bondtest, X-ray and AMI systems for testing and failure analysis of battery components. DAGE's 4600 Battery Bondtester can be automatically configured to quantify the strength of connections using most standard test methods. Heavy gauge wire bonds or battery tab welds typically involve forces of 20-100kg. We offer custom solutions specific to these applications, with shear and pull testing modes of 100kg pull and 200kg shear. Our head-extension mainframe delivers the ideal, large working area, universal battery testing platform.

Visit us on stand: 28 & 29

Nordson TEST & INSPECTION

25 Faraday Road, Aylesbury, Buckinghamshire HP19 8RY
www.nordsondage.com

Exhibitors



Paragraf™ develops and delivers commercial-quality graphene electronic devices using contamination-free technology that is compatible with existing electronic device manufacturing production processes.

Our Hall effect sensors deliver the unique properties of graphene into magnetic field sensing applications. Ideally suited to the battery market, cell insights include:

- Real time current density mapping – observe localised variations across the cell, over time, and during charge/discharge.
- Failure mode analysis – correlate hot spots to local changes in current density.
- Simultaneous monitoring – observe current flowing into individual cells within a multi-cell pack.
- Quality control – detect manufacturing defects non-destructively.
- Recycling/reuse – screening battery cells for reuse and repurposing.

Visit us on stand: 3

Paragraf

7-8 West Newlands,
Somersham, Cambridgeshire,
PE28 3EB

www.paragraf.com



Pickering offers PXI, LXI & USB signal switching and sensor simulation solutions for automotive test applications. With the increasing adoption of electric vehicles, one of the significant challenges to be tackled is the effective testing and validation of the Battery Management Systems (BMS). To facilitate BMS testing, Pickering will introduce our latest battery simulator module (41/43-752A), a 6-channel battery simulator available in both PXI & PXIe formats. These modules are ideal for battery stack emulation with the advantage of a modular and scalable platform. Highlights include current and voltage read back and a change in the software engine providing a more accurate output.

Visit us on stand: A05

Pickering Interfaces

Stephenson Road, Clacton on
Sea, Essex CO15 4NL

www.pickeringtest.com



PI-KEM are specialist suppliers of advanced energy storage materials and equipment for battery research. We were extremely proud to exhibit on behalf of our international partners who are working at the forefront of the next generation of battery technology:

MTI Corp. are a world leading supplier of equipment for battery development; from battery preparation through to test cell assembly.

LTS Research Laboratories Inc. pride themselves on their high purity, high performance materials and an unrivalled research and development team offering precise control in creating materials to exact specifications.

Both companies are authorities in Li-ion based solid state electrolytes.

Visit us on stand: M10

PI-KEM Ltd.

Unit 18-20 Tame Valley
Business Centre, Magnus,
Tamworth, B77 5BY

www.pi-kem.co.uk



We can help with all aspects of Power Quality for your business.

PFC - Power Factor Correction

AHF - Active Harmonic Filters

HPQ - Hybrid Power Quality

UPQ - Uninterruptible Power Quality

ESS - Energy Storage Systems

SS - Site Services

Visit us on stand: A08

Power Capacitors Ltd.

30 Redfern Road, Tyseley,
Birmingham, B11 2BH

www.powercapacitors.co.uk

Exhibitors

QINETIQ

QinetiQ is an integrated global defence and security company. Operating at the leading edge of science and engineering and employ over 6,000 people, including more than 3,000 scientists and engineers. Playing a central role in capability generation and assurance for our customers, helping them deliver operational and competitive advantage.

Uniting our own and others' technology and know-how to provide distinctive specialist services and products that address our customers' most pressing challenges. We are integrated across the life cycle of critical equipment and infrastructure, undertaking creative research and development, enabling test and evaluation and delivering operational readiness through training and rehearsal.

Create it. Test it. Use it.

Visit us on stand: 55

Qinetiq

Cody Technology Park, Ively Road, Farnborough, GU150LX
www.QinetiQ.com



Since 2013 RML Group has made our mark as leaders in the world of electrification. Recent projects put us at the forefront of EV design and build with our energy storage design and manufacturing being state-of-the-art. Our engineers have already designed several Pure EV and Hybrid vehicles, with our capabilities range from high efficiency powertrains to complete vehicle programmes. Using our in-house simulation capabilities and motorsport pedigree, we can deliver the performance you need within short timescales.

Visit us on stand: M20

RML Group

6-10 Whittle Close, Park Farm Industrial Estate, Wellingborough, NN8 6TY
www.rmlgroup.com



Visit us on stand: M23

Rockfort Engineering Ltd.

Unit A1, 20B Wildmere Road, Banbury, Oxfordshire, OX16 3JU
www.rockfortengineering.com

Rockfort Engineering are specialists in electric powertrain and ancillary systems with applications ranging from Formula 1 through to HGVs as well as non-automotive applications. We deliver part and full electric vehicle, powertrain and electronics systems and offer a range of EV powertrain technologies and products. These include electronics, batteries, high voltage control and brake-by-wire systems and software providing full vehicle, powertrain and dynamics control. We are also experts in the ISO26262 functional safety standards which we apply to appropriate levels in all our projects and offer training and support to customers in its application.



Visit us on stand: 13

Samuel Taylor Limited

Arthur Street Central, Lakeside, Redditch, B98 8JY
www.samuelstaylor.co.uk

Samuel Taylor Ltd (STL) manufactures precision stamped components and assemblies, specialising in the sophisticated bonding of bi-metals. With over 120 years of manufacturing history, and an in-depth understanding of metal stamping, STL has successfully transferred its expertise in busbar technology for smart metering, into the development of busbars for electric vehicles.

STL's full in-house design and tool build capability supports new and existing project developments from prototype samples to mass-production of presswork components and assemblies.

Exhibitors



Schaltbau manufacture DC Contactors for E-Mobility, Energy Storage, Charging and Isolation. The new C310 range offers up to 1000V 500A Bi-Directional DC operation. The CP range offers up to 3000V 2000A DC operation with pre-charge, multipole and Normally Closed options. Schaltbau also manufacture Charging Connectors and Snap Action Switches.

Schaltbau Machine Electrics also manufacture Power Switching Sub-assemblies and cable harnesses.

Based in Cwmbran, South Wales, Schaltbau Machine Electrics are both a manufacturing plant and distribution point for the Schaltbau product range, and specialists in DC Power Switching. Happy to discuss any requirements you have.

Visit us on stand: 35

Schaltbau Machine Electrics

335/336 Springvale Industrial Estate, Cwnbran NP44 5BR
www.schaltbau-me.com



SiTEST are pleased to show their exciting new product In-Line cell to chassis bonder, producing the highest quality connections in batteries that can be achieved by current technology but implemented on your production line. We still have the availability of the offline bonders (ultrasonic and laser) for battery modules.

Easily coping with different height busbars and impervious to contaminants that affect Ultrasonic wirebonders.

Also on show is a smart BMS module system by Mersen, combined with the F&K Laserbonder gives the highest possible throughput in manufacture whilst giving the highest quality connections for Production environments.

If you are manufacturing Anodes, Cathodes and Separators, then ask about our Dr Schenk In-line Inspection systems that help you improve your yield and produce quality battery materials.

Visit us on stand: A09

SiTEST Ltd.

10 Minster Park, Collingwood Rd, West Moors, Wimborne, Dorset, BH216QF
www.sitestest.co.uk



SPIROL is a global fastener leader that provides high-quality components that improve the quality of your assembly, extend the life of your products, and reduce your manufacturing costs. We are the leading manufacturer of engineered fasteners, installation machines, and parts feeding equipment producing over two billion components annually. In addition to high-quality products, SPIROL has Application Engineers throughout the world to assist you in your designs, supported by state-of-the-art manufacturing centers and global stocking facilities to simplify the logistics of delivering your product

Visit us on stand: A11

SPIROL

17 Princewood Road,
NN17 4ET Corby
www.spirol.com



Combined Test Solutions Ltd, (CTS) has been making and supplying Automatic Test Equipment for over 30 years. With over 1,000 UK customers and a reputation as "The Best in Test", CTS has always provided the expertise, know-how and support required to make a purchase of test equipment successful.

CTS has recently purchased Stantronic (UK) Ltd and is now the UK / Eire distributor for some 16 significant global suppliers of a broad range of test equipment.

At Battery Expo 2021, Silverstone in October, CTS will concentrate on the impressive range of battery and EV test-related PSU's, regenerative loads from an array of manufacturers.

Visit us on stand: 25

CTS - Stantronic

Combined Test Solutions,
4 Commerce Way,
Stanbridge Road, Leighton Buzzard, Beds, LU7 4RW
www.combinedtestsolutions.co.uk

Exhibitors



Strainsense has been a trusted and reliable supplier of specialist sensors and instrumentation products. We supply quality sensors for Vibration, Acceleration, Shock, Strain, Pressure, Position, Force, Instrumentation, Inertial, Tilt/Inclination, Torque and Current for both static and dynamic applications.

We also supply the latest high accuracy power analysis and data acquisition equipment, enabling you to satisfy all your measurement requirements in one place. We have a wealth of experience in the Automotive, Crash Test, Flight Test & Military, Aerospace, Space & Satellite, Subsea, Rail, General Test & Measurement and Education markets and we supply both off the shelf and bespoke products.

Visit us on stand: 33

Strainsense

Old Stratford Business Park,
Falcon Drive, Old Stratford,
Milton Keynes, MK19 6FG, UK
www.strainsense.co.uk



Tappex Group of companies includes Tappex Thread inserts, UK manufacturers of high quality threaded inserts for plastics, composites and light alloys since 1956. Our qualified and experienced sales engineers will be available to discuss your thread insert projects & challenges and we'll also be offering demonstrations of our new installation equipment and promoting our new products, including our range of Titanium thread inserts. We will also be promoting our sister company Pressavon - Est 1953. Pressavon who specialise in progression tooled bracketry, pressings and stampings and sub-assemblies, primarily for fluid handling applications in the automotive industry.

Visit us on stand: M22

Tappex

Masons Road, Stratford-upon-Avon,
Warwickshire CV37 9NT
www.tappex.co.uk



Technotrans understands that the temperature of modern lithium-ion batteries is an essential factor for the correct operation and service life of high-performance batteries. Optimum operating temperature of vehicle batteries and stationary energy storage devices can be ensured by a range of our powerful cooling systems. Technotrans offers a wide range of cooling concepts for fast-charging stations. These include compact designs of active as well as passively cooled charging cable cooling modules, suitable for easy integration into the charging stations.

Visit us on stand: 16

Technotrans

Axis One, Brunel Way,
Colchester, CO4 9QX
www.technotrans.com/en



As technology invites complexity, advanced applications are pressed to reflect simplicity. Visit us at stand A10 to see some of the ways Tek experts are supporting the customer, with understanding for the way you work, and innovation to make life easier. We look forward to seeing you.

Visit us on stand: A10

Tektronix UK Ltd.

Capitol, Oldbury,
Bracknell, RG12 8FZ
uk.tek.com

Exhibitors



Telonic a specialist in test instruments and power supplies will have on show Delta Elektronika's new range of programmable dc power supplies which run from 30w to 900kW including a new range of grid tied regenerative sink source units.

Also on show will be Kikusui's range of DC electronic loads for battery testing and kikusui's DC bench power supplies with built in variable impedance setting.

Visit us on stand: 22 & 23

Telonic Instruments Ltd.

Unit 5, The Business Centre,
Molly Millar's Lane, Wokingham,
Berkshire, RG41 2QZ
www.telonic.co.uk



The Faraday Centre is an international training company specialising in the provision of Electrical Safety Training. We provide training at our purpose-designed facilities in the UK, which are fully equipped with a wide range of operational high/low voltage electrical training equipment. Or, alternatively, training can be held at our clients' sites, both in the UK and internationally.

Our courses cover a wide range of subject areas; and we provide training to specialist engineers or anyone who comes into contact with electrical equipment. The courses are designed to be delivered over a matter of days and we can provide bespoke courses for our clients whose remit does not fit into our standard course overview.

All of our courses are regularly updated to ensure they meet industry requirements/regulations, and are delivered by qualified tutors, all with many years electrical engineering experience.

We also provide onsite auditing, consultancy services and development of high voltage safety rules/documents designed to meet the clients' requirements and to ensure compliance with current regulations

Visit us on stand: A06

The Faraday Centre

The Wilton Centre Annexe,
South Building, Wilton Centre,
Redcar, TS10 4RF
www.faradaycentre.co.uk



Thermal Hazard Technology

Thermal Hazard Technology (THT) is one of the leading suppliers of lithium battery safety testing equipment.

ARC provides an adiabatic testing environment typically leading to full thermal runaway. Thermal abuse, overcharge, controlled-speed nail penetration and short circuit can be carried in the ARC.

IBC Isothermal Battery Calorimeters (IBC) for high precision heat measurement and heat capacity determination.

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Thermal Hazard Technology

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Exhibitors



TR Fastenings Ltd (TR) is part of Trifast plc and is an international specialist in the design, engineering, manufacture and distribution of high quality industrial and Cat C fastenings principally to major global assembly industries.

TR is actively working with a number of organisations involved in the design, manufacture and development of Electric Vehicles (EVs), Battery Pack Modules (EVB) and Electric Vehicle Charging Units for both commercial and residential use. As this sector continues to emerge and develop, TR is able to supply an extensive product range and has the necessary technical knowledge, expertise and experience to support this industry.

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Unitemp Ltd.

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Universal Science & Materials Direct

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Exhibitors



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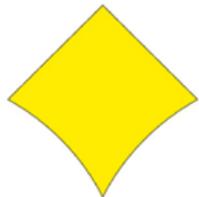
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