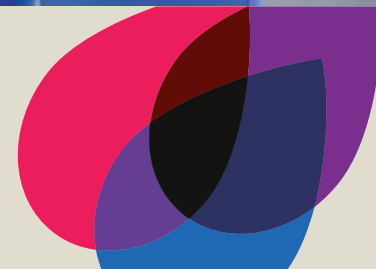


KTN Wearable Technology Showcase

Stand F1, Business Design
Centre, London
12th & 13th March 2019



Innovate UK
Knowledge Transfer Network





Introduction

The Knowledge Transfer Network (KTN) is delighted to be exhibiting at the Wearable Technology Show 2019. As part of our exhibition stand we are showcasing a range of emerging technology companies who have been handpicked from our network. These companies represent the cutting-edge of wearable tech, from wearable neurotechnology platforms to emotion analytics. This booklet highlights their work.

We will be hosting a panel discussion at the event with leading start-ups and established companies, to hear how each has tackled the challenges of launching a wearable technology product in the current market and to discuss future trends and market opportunities. It will be held on the 12th March at 11.20 am on the Wearable Stage. Moderated by: **Monika Dunkel**, KTN. Panelists: **Tommy Williams**, *Wearable Link*; **Ravinder Dahiya**, *University of Glasgow*; **Alec Creighton**, *Bodytrak®*; **Simon Julier**, *KIT-AR*.

About KTN

KTN is the UK's innovation network, established to help deliver economic growth for the UK.

We help businesses get the best out of creativity, ideas and the latest discoveries, to strengthen the UK economy and improve people's lives. As a network partner of Innovate UK, KTN links new ideas and opportunities with expertise, markets and finance through our network of businesses, universities, funders and investors.

From materials to energy and from manufacturing to healthcare, KTN combines in-depth knowledge in all sectors with the ability to cross boundaries. Connecting with KTN can lead you to potential partners, horizon-expanding events, bespoke support and innovation insights relevant to your needs.



Exhibitor Profiles

ActionSense

ActionSense produce a new wearable glove system that can detect and measure joint stiffness; using a novel fabric glove with stretch sensors with backend data analytics for clinical monitoring.

ActionSense has been established as a result of a strategic collaboration between academics, Rheumatology specialists and product development experts. We have designed and developed a totally new wearable system that can detect and measure joint stiffness. The ActionSense measurement solution offers many benefits in terms of clinician time-savings, speed and accuracy of diagnoses and remote rehabilitation and analysis.

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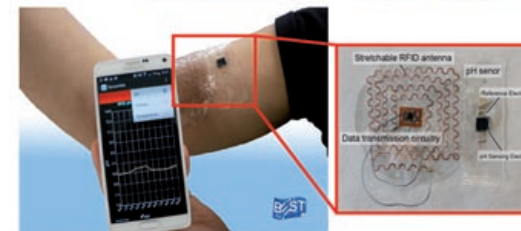
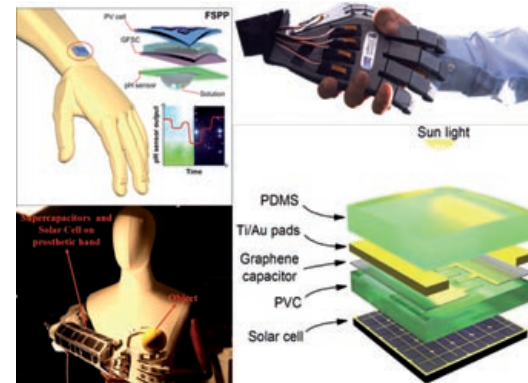
BEST Group, University of Glasgow

Bendable Electronics and Sensing Technology (BEST) is a multidisciplinary research group from University of Glasgow and has vision to develop wearable solutions for healthcare, rehabilitation and environment monitoring.

BEST group focuses on the multidisciplinary fields, comprising of: Nanomaterials based Flexible Electronics (NanoFE), Energy Systems and Sensors, Assistive Robotic Technology (ART), and Bionics. Our vision is to develop cost-effective high-performance flexible and large-area electronics and sensing systems on non-conventional flexible substrates for wearable applications. Flexible electronics for sensing, data transmission, energy harvesting and storage applications are required to be robust against mechanical deformation. Recently, the group has successfully demonstrated the following:

- Electronic skin for large area touch sensing applications.
- Solar powered energy autonomous electronic skin.
- 3D printed sensorized Prosthetic limbs.
- Tactile sensors for prosthetic/robotics.
- Stretchable wearable sweat monitoring sensors with wireless communication and power.
- Wearable supercapacitor powered by solar cell for self-powered system.

BEST group is exploring a range of materials (e.g. graphene, piezoelectric polymers, nanocomposites etc.) and fabrication methods including contact printing, screen-printing, transfer printing, 3D printing and solution deposition methods.



ravinder.dahiya@glasgow.ac.uk | bit.ly/2GWRf7d



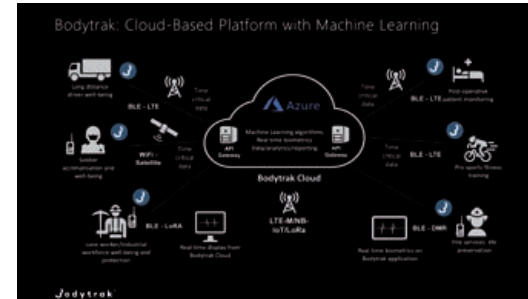
Bodytrak®

Bodytrak®, an in-ear device that accurately tracks a comprehensive set of physiological markers in real-time and utilises a cloud based analytics platform to enable actionable outcomes and prevent the onset of work-related incidents.

Bodytrak®, the first precision physiological monitoring solution offering a highly accurate non-invasive earpiece, which measures vital signs alongside two-way audio communications and ambient noise metering. Bodytrak continuously measures several key parameters, including: core body temperature, heart rate, VO2, motion metrics and noise exposure levels for risk assessment of noise-induced hearing loss. Real-time data is sent to the Bodytrak cloud platform where proprietary analytics are used to generate alerts to key health markers, such as heat stress and fall detection, enabling early intervention. The platform also provides reporting for retroactive assessment of data for policy/doctrine review and linkage to insurance services.

contact@bodytrak.co | bodytrak.co

Bodytrak®



Emteq Ltd

Emteq aims to quantify emotion and non-verbal communication; to develop the Universal Emotion AI platform to read and interpret our moods, recognise and measure our fatigue and pain, and to quantify what we like and dislike.

EmteqVR™ is wearable technology that fits into existing VR headsets and enables facial expressions, heart rate and indicators of emotional intent to be captured, enabling EMOTION ANALYTICS and EMOTION-AS-AN-INPUT. This information can be used to monitor the reaction of the person within an immersive experience, using a scientific, quantified method.

info@emteq.net | emteq.net

emteq



GripAble

We develop smart mobile devices to allow people with disabilities to perform rehabilitation at home.

430M patients worldwide live with upper limb deficits. The most effective therapy shown to improve movement is repetitive exercise. GripAble is developing an ecosystem of sensor based devices and a gamified mobile platform to provide remote physical assessment and therapy. The first controller in the companies range is a digital handgrip that connects wirelessly with our mobile app. The system is affordable and portable, enabling independent use in bed or at home, alongside integration into therapist-led physical rehabilitation sessions. Another function is provided through motion tracking capabilities, which enables GripAble to act like a mobile Nintendo Wii controller, allowing whole-arm therapy.

paul@gripable.co | gripable.co

gripable



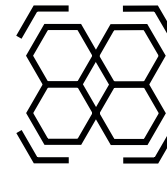
HP1 Technologies Ltd

Introducing HP1T's revolutionary pressure sensor array for Sports & Leisure helmets.

Introducing HP1T's revolutionary range of pressure sensor arrays for Sports & Leisure helmets. Currently used in the equestrian market to measure the impact of falling from a horse. Detects impact time, location and magnitude via an open-source proprietary ICS system. The only sensor on the market that measures actual impact force, pressure and damage. Through using this data HP1T can gather out-come based research to radically improve helmet design and safety features for Sports & Leisure.

Launching with World Leading Helmet Manufacturers Charles Owen in June 2019.

andy.baker@hp1t.com | hp1t.com



HP 1T



KIT-AR

KIT – AR is innovative augmented-reality tech designed to enhance industrial workers productivity and efficiency. It provides them with all the knowledge and technical details they need on the shop floor.

KIT – AR is an end-to-end augmented reality system with four major components.

KIT-ASSIST is the main voice-activated AR interface that provides specialist knowledge and details directly to the operator.

KIT-SMART is a set of intelligent modules that sense the working environment, monitor worker activity and intervene when necessary to present instructions or warnings.

KIT-BUILD is the control system allowing instruction sets to be built for the KIT-SMART modules and the KIT-ASSIST interface.

KIT-INSIGHT gathers all the data and process analytics collected by KIT-ASSIST and KITSMART and presents valuable productivity and efficiency insights.

info@kit-ar.com | kit-ar.com



KIT·AR

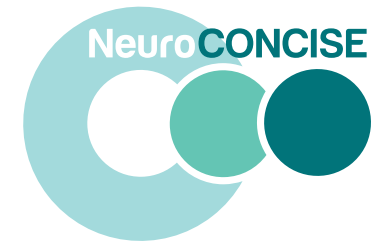


NeuroCONCISE Ltd

Discrete, wearable, AI-enabled neurotechnology platform that translates brainwaves into control signals.

An AI-enabled and cloud-connected wearable neurotechnology platform that translates brainwaves into control signals for rehabilitation and movement-free diagnostics, communication, control and entertainment. The platform includes electronics on flexible PCB substrate and new sensing electrodes that can be embedded and concealed in any standard headwear (caps, hats etc) and is built on 15 years of awarding winning AI enabled signal processing research at Ulster University and trials with end-users including multiple patient groups with physical disabilities. In 2018 NeuroCONCISE won the IET Innovation Awards startup category and the inaugural IET & E&T Innovation of the Year Award.

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neuroconcise.co.uk



Wearable Link

Wearable Link specialises in the design and manufacture of connected wearables. The Wearable Link platform is completely customizable offering connectivity to users up to a distance of 6 miles, in the harshest environments, without the need for a network.

Wearable Link is a Midlands based technology company specialising in the design, development & customisation of connected wearables. Wearable Link uses a blend of standardised and proprietary technologies to ensure robust connectivity in the most challenging environments.

Connected wearables can be adapted to suit a range of applications.

Wearable Link is currently working with industry leaders to improve safety, productivity and compliance on UK construction sites, with a consumer brand improving connectivity in and around the home and by professional surfers riding the world's biggest waves.

hello@wearable-link.com | wearable-link.com



Zinergy UK LTD

Ultra-thin flexible batteries for wearables and IoT.

The world is changing fast. Sensors, actuators and smart tools are exponentially growing in number. From healthcare to packaging, the technology is set to change our lives. Zinergy's vision is to be at the heart of this growth, by being the source of power behind this revolution.

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Innovate UK

Knowledge Transfer Network

The Future. Faster.

Connecting people to accelerate innovation.

KTN connects people to accelerate innovation, solve problems and find markets for new ideas. We bring together businesses, entrepreneurs, academics and funders to develop new products, processes and services to create value and benefit society.

KTN's specialist teams work across key sectors of the economy, from defence and aerospace to the creative industries, and from agri-food to materials and robotics. Our expertise in connecting sectors, disciplines and skills through the right collaborations and business approach is what helps unlock the tremendous hidden value in people and companies.

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