## Energy high at London IoT start-up event



### Rory Dear, European Editor/Technical Contributor

Billed as the place to discover today's rising companies within the London hardware and IoT scene and connect with the people reinventing the future of the Internet of Things (IoT), I naturally ensured I attended Show Me the Product, Hardware Pioneers ' hardware, wearables, and IoT start-up demo night. What I feared encountering was a poorly-planned Shark Tank/Dragon's Den emulation, with bored-looking journalists battling to derail speakers by berating their respective business models. I couldn't have been more wrong. The British are notoriously reserved... Continued...

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## Dell IoT Gateway brings BMS to the little guys



Jamie Leland, Content Assistant

Dell recently announced the winners of their Connect What Matters competition, which challenged participants to design an innovative IoT solution with real business impact. One of those winners was Riptide, a cloud-based building management solution that brings automation and oversight capabilities to small and medium commercial buildings. "In large buildings, they are complex enough to [...] <u>Continued...</u>

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## Avoid an environmental catastrophe



Rory Dear, European Editor/Technical Contributor

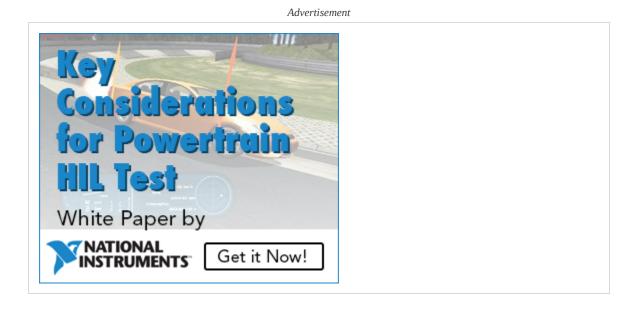
EU or no EU, the UK will continue to pride itself on its environmental consciousness. Hence, we need to do our due diligence in one of our most important industries, where obsolete electronics are famously difficult to recycle. We've all been appalled by images of vast electronic waste dumps and various directives have been implemented, such as WEEE, to address this in legislature. By and large, such directives cover efficient processing of electronic waste rather than actively encouraging reduction throughout the supply chain.... Continued...

### Post-Brexit UK and Embedded – from the ground



Rory Dear, European Editor/Technical Contributor

The revolution of IoT is finally transforming the embedded industry in the UK (and globally) from niche to mainstream, though the immediate aftermath of the Brexit is stifling that growth. The majority of UK embedded vendors fall into one of two groups. The first produce highly specialized solutions designed and manufactured in the UK and invariably exported back out. The second, the majority, relies on import of Far Eastern product to sell into the UK. For those predominantly exporting, allegedly the post-Brexit 'collapse' of... Continued...



## Retrofitting Industrie 4.0



Rory Dear, European Editor/Technical Contributor

The new generation of factory machinery across every manufacturing industry has an unprecedented level of integrated intelligence. Historically, this intelligence was used just for local machine control, and later, for very basic local monitoring, often as simple as the Boolean on/off state. Today, these machines invariably connect instantly to the factory IT infrastructure via Ethernet. And tomorrow, we'll see them connect directly to the cloud, particularly as Narrowband IoT (NB-IoT) gains traction. How powerful the Industrial IoT (IIoT) and Industrie 4.0 revolution will be... Continued...

### Will MCAP mean the end of resistive

### touchscreens?



#### Rory Dear, European Editor/Technical Contributor

Resistive touchscreens arguably should have been resigned to the technological scrap heap alongside ZIP drives and dial-up modems long ago. However they still cling on in industrial applications, despite their inherent unsuitability and fragility. Why is this? Some would argue it is price. Sadly, in today's world of ever tightened purse strings, those specifying such human-machine interfaces will blindly snatch at the smallest of cost-reductions at the expense of (what should be) our industry prerequisites of robustness and operational lifetime. However, this isn't the... Continued...

# 5D glass discs take storage bandwidth to light speed



### Rory Dear, European Editor/Technical Contributor

As we get closer to reaching the limits of flash capability, we naturally ponder, "What's next?" The University of Southampton believes it has the answer – five-dimensional (5D) glass discs . Traditional flash wears out, hard drives eventually fail and, going much further back, photographs fade and books rot. While no embedded solution would claim (or require) an operational lifetime of centuries, current storage memory hampers the 'fit-and-forget' ideology of our industry. There's also a wider question of preserving humanity's collective culture, currently transferred... Continued...

## Enabling and securing the "where and when" of IoT



Mats Andersson, u-blox and Simon Gassman, u-blox

When contemplating a new Internet of Things (IoT) design, embedded developers have many options to consider when selecting a means of communication

for distances of up to approximately 100 meters. They might choose the IEEE 802.15.1 Bluetooth with its various forms, such as Bluetooth Low Energy (BLE) and Bluetooth Classic. There are also the wireless protocols based around IEEE 802.15.4 such as ZigBee, WirelessHart, and Thread. Other possibilities might include Z-Wave and 802.11 Wi-Fi. Weighing the merits of each might occupy a lot of... Continued...

### Your smartphone could double as an IoT gateway



### Rory Dear, European Editor/Technical Contributor

As a standalone product, the well-publicized IoT gateway has come under regular attack since its inception from seasoned OEMs adamantly realizing that the IoT revolution doesn't require a discrete middle-man and another box. Router makers argue that integrating short range RF functionality into their products negates a separate gateway, while those promoting narrowband IoT (NB-IoT) technology argue that their technology for IoT renders both router and gateway redundant. Many are also looking at their smartphones, wondering if therein lies the solution, and it's easy... **Continued...** 

## AMD sets its sights on everything with the G-Series LX



### Rory Dear, European Editor/Technical Contributor

Back in 2014, I wrote ARM vs x86: Is x86 dead? where naturally my conclusion was a simple and resounding "no." However, I observed ARM gaining such traction in low-power and mobile devices that I struggled to see a way back for x86 within those applications. Arguably somewhat belated, AMD this year announced a new cost- and power-optimised extension to its G-Series portfolio, the 64-bit G-Series LX . AMD markets the product as "meeting the compute and multimedia processing performance needs of mainstream embedded... Continued...

## Monitoring nefarious people with offender tags



### Rory Dear, European Editor/Technical Contributor

Stretching back to Medieval times the "Go directly to jail, do not pass Go, do not collect \$200" approach to offender processing was all that existed. More recently, offender tags offered a way of semi-releasing said offenders back into society, yet purportedly placing heavy restrictions on the role they can play within it via curfew enforcement. Offender tags, once mated with a fixed device installed in the offender's home, would trigger if the offender wasn't present by X time. Then, their immediate (re)arrest would... Continued...

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