



Winners of British Engineering Excellence Awards celebrate their success

Engineering success

The British Engineering Excellence Awards make a successful debut. **Graham Pitcher** reports

The winners of the British Engineering Excellence Awards were announced at a gala luncheon held on 1 October at London's Globe Theatre.

Congratulations to the winners and thanks to all companies who entered the inaugural event. The BEEAs will be back in 2010, so watch out for the call for entries.

Meanwhile, here are the winners of this year's event.

GRAND PRIX 2009

Sponsored by:
elc Electronics Leadership Council
WINNER:
FLYBRID SYSTEMS

The winner of the British Engineering Excellence Grand Prix was selected by the Judges from winning entries in the other Award categories.

The Flybrid Kinetic Energy Recovery System (KERS) is a mechanical device that is fitted to a car to reduce its fuel consumption and CO2 emissions. The device is suitable for use on all types of car and can be scaled up for use on heavier vehicles like



buses, trucks and even trains.

According to Flybrid, its KERS will be approximately one third the cost of the key competitor product in volume production.

Flybrid expects to become the predominant supplier of flywheel based hybrid systems to the automotive market in both road and racing cars.

The intellectual property protection afforded by six patents and a trademark for the word Flybrid should ensure it is difficult for competitors to effectively enter this market.

JUDGES' SPECIAL AWARD

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Bloodhound SSC
WINNER:
LOTUS
ENGINEERING



Given Lotus' prestige over the years and its very high end level of automotive engineering, the Judges were impressed that the company had continued to deliver world leading performance despite the economic problems experienced by the sector in the last 18 months.

More than 70% of Lotus Engineering's activity is for third party clients, with work performed on some of the most significant projects in the automotive and engineering sectors.

Its clients – major global car manufacturers, new entrants to the industry and everything in

between – value its understanding of the automotive business, its engineering expertise and its talented staff.

CONSULTANCY OF THE YEAR

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Prototype Projects
WINNER:
PLEXTEK



The Judges expected the Consultancy of the Year category to be one of the strongest and the entries confirmed that view. And it's no surprise: the design consultancy sector is one of the UK's stronger markets, with companies of all sizes offering a range of services.

The Judges looked for evidence of the speed with which projects have been delivered, along with the range of technologies. Other critical factors included the degree of innovation applied.

Plextek impressed the Judges with the range of its design capabilities and its market reach within the communications sector – from leading edge chip design to supply chain management. Particularly impressive was the recent growth in the company's business, which includes some 'big ticket' projects.

Plextek has evolved from a pure 'design house' into a multidisciplinary consultancy capable of managing customers' products from design to manufacture and supply.

HIGHLY COMMENDED:

Lotus Engineering was highly commended.



DESIGN ENGINEER OF THE YEAR

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WINNER:

MARK SANDERS,
MAS DESIGN PRODUCTS



Engineers are the people that make things happen; they take designs from the back of the envelope to the market. Nominees needed to demonstrate innovative designs within strict commercial limits and the development of transferable technology. The Judges also looked for engineers who had contributed to their industry.

Mark Sanders was judged to be prolific, practical and creative, with a wide range of design expertise. In particular, the Judges were impressed with his involvement in the education of the next generation of engineers.

Sanders specialises in combining engineering and industrial design and can take projects from preconcept stage to production. Most projects involve a high level of innovation and usually result in at least one patent.

Sanders also runs a workshops in schools and universities, both in the UK and internationally.

HIGHLY COMMENDED:

Dr Robin Taylor of Lein Applied Diagnostics was highly commended by the Judges.

YOUNG DESIGN ENGINEER OF THE YEAR

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RS Components



WINNER:

OLIVER START,
POWELECTRICS

If designers are the people that make things happen, young designers are the people that will make things happen tomorrow. But, that doesn't stop them contributing today.

Factors that influenced the Judges included a demonstration of knowledge which the young engineer has had to apply; the contribution made to a project, the degree of innovation applied and the nominee's personal qualities.

Oliver Start's entry highlighted these abilities and impressed the Judges unanimously. In a small company, where employees have to take more responsibility, the Judges thought this was an outstanding achievement.

Start's broad skill set has allowed him to develop, singlehandedly, a device which has given Powelectrics a significant market advantage and enabled them to secure a global supply agreement from a major multinational organisation.

NEW ELECTRONIC PRODUCT OF THE YEAR

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New Electronics



WINNER:

ELECTROSONIC

Electronics is a pervasive technology, underpinning developments in a wide range of markets. Competing in this global market is a challenge; even for big companies. It's even more challenging for the UK's predominantly SME based sector, where identifying a solution and executing upon a strategy is critical.

This was the toughest category and the





Judges Richard Noble (left) and Harry Tee (centre) underlined engineering's importance to the UK economy, following Findlay Media executive director Ed Tranter's introduction (right)

Judges had to debate for sometime before finally deciding on a winner.

With internet traffic doubling every two years, organisations looking to distribute and collaborate with very high bandwidth image content face logistical challenges. VN-Matrix solves the three way performance paradox inherent in image distribution by maintaining image fidelity, low bandwidth and low latency.

HIGHLY COMMENDED:

Entries from Atlantic Inertial Systems and Cambridge Semiconductor were highly commended.

GREEN PRODUCT OF THE YEAR

Sponsored by:

Centre for Remanufacture and Reuse



WINNER:

ARTEMIS INTELLIGENT POWER

Artemis Intelligent Power swayed the Judges with its novel approach to a vehicle hybrid power system. By using hydraulics, the system would do away with the need for battery packs and the components used are recyclable. In addition, the company has solved some fundamental issues to improve the efficiency of hydraulic systems.

Artemis has successfully demonstrated its Digital Displacement Hydraulic Hybrid vehicle technology. It believes it has shown that, while there is still progress to be made in hydraulics, the benefits of electrical systems can now be matched by a hydraulic alternative.

HIGHLY COMMENDED:

Allied Telesis' entry was highly commended.

NEW MECHANICAL PRODUCT OF THE YEAR

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Eureka



WINNER:

BLATCHFORD

Engineering products are an integral part of many systems. Whether it's a component design or an overall system, the degree of innovation is always impressive.

Blatchford won the Judges' votes due to its innovative system approach to design and its ability to replicate the dynamic behaviour of the foot.

Echelon is an artificial ankle joint that uses an adjustable hydraulic damping device to restore much of the lower limb's natural movements. This is based on the analysis of the combined leg-ankle-foot system, rather than the requirement of each individual component part which then need to be integrated.

HIGHLY COMMENDED:

Oxford Instruments NanoScience's entry was highly commended.

SMALL COMPANY OF THE YEAR

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Technology Strategy Board

Technology Strategy Board
Driving Innovation

WINNER:

SPECIALISED IMAGING

With much of UK industry composed of small companies, strong competition was expected.

Entrants all demonstrated an understanding of their abilities and their markets. However, two companies were undoubtedly world leaders in their particular fields; another had developed a

useful platform based design approach. But Specialised Imaging won the Judges' eye.

Specialised Imaging is a leading manufacturer of ultra high speed imaging cameras. The market for its products is international, with more than 90% of sales being for export. Since 2006 the company has been profitable and cash positive. It now employs 12 people and will shortly employ a further two in the US later this year.

START UP OF THE YEAR

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Cambridge Consultants



WINNER:

FLYBRID SYSTEMS

Spotting a market is one thing; delivering a solution is another. The Judges looked for a solution that was not only well designed, but which also met customers' cost expectations. Eligible companies were those developing mechanical and/or electronic products and which had been established no earlier than 1 January 2006.

Flybrid 'ticked all the boxes'; it has an elegant solution to kinetic energy recovery, a strong business plan and strong market acceptance.

Flybrid Systems has performed better than originally planned. The business is profitable and has been from its inception. There is a strong order book, with all overheads effectively covered until at least March 2010, and there are a number of major sales enquiries on the horizon.

The move to road cars has come at least two years earlier than originally planned, and deals have been signed with three major car manufacturers.