



Welcome to Z-Tech's redesigned NEWZ, a customer newsletter designed to keep you up-to-date with what's happening at Z-Tech Control Systems Ltd.

EDITORIAL by Luke Stanbridge, Marketing Manager

Over the last 6 months Z-Tech has developed a number of new products and opportunities, extending technical teams into more companies.

Starting work with Anglian Water is a major step in our water industry expansion plans. Z-Tech has also been the first to use Microwave Moisture Sensors in grain dryer automation and develop a cost-effective energy monitor. We have also extended research into fluid dynamics for water-flow and developed our expertise in Pressure Reducing Valves for leakage control.

I've been with Z-Tech for the last 6 months and have been amazed at the amount of different projects the company undertakes.

I'm also pleased to be part of a highly creative company with a 'can-do' attitude to customer problems.

As we reflect over 2011, we see a turning point in the company's history, with the expansion of our fleet of mobile teams, adaptation of existing technology, and expansion into new markets.

In the current economic climate, Z-Tech is successful due to the dedication and creativity of its staff. We employ many leading professionals who not only give their all for Z-Tech, but also undertake lots of activities outside work. In this NEWZ letter, you will hear about the people of Z-Tech, their charitable work, stories and skills.

NEW CUSTOMER: ANGLIAN WATER

Z-Tech provides technical services to an increasing number of national water supply companies. Provision includes: a one-stop-solution for flow meter installation and maintenance, as well as technical teams with expertise at every stage of the process, from water collection to disposal.

We have recently started major work with Anglian Water, one of the largest water supply companies in the UK. Our Water Projects Team has secured a contract to repair and replace flow meters as part of a general maintenance programme. *Article continued on next page...*



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The 'total package' offered to Anglian Water includes referring to detailed street plans to find water pipes, and using health and safety protocols to cordon the area and install traffic management - thereby ensuring a safe working environment. We then use our experience in civil work to excavate

the area, construct the chamber and in the final installation of the meter, together with full re-commissioning at the roadside.

Jamie Chamberlain, Business Manager of the project said "Anglian Water is a valued new customer and we will ensure that the delivery of their maintenance

programme upholds our excellent standards. I also hope we will develop the relationship further. It's exciting times at Z-Tech at the moment - as we continue to take on more water industry clients."

ENERGY SAVING LIGHTING PROJECT

In the ever changing world of energy consumption, spiralling costs and global warming, we are all looking for innovative technological advances to reduce the accelerating rate of our usage, the waste of our natural resources and the deterioration of the ozone layer.

To this end, Z-Tech have recently contributed by working with one of our blue chip clients on a turnkey energy reduction project. It involved determining functional requirements, quantities, lamping and lux levels, before redesigning existing emergency and non-emergency fitting layouts (all in compliance with current regulatory and mandatory requirements).



Working within a fully occupied and functional building with classified Zone 2 hazardous production areas, industrial service plant rooms, general office environments, walkways and staircases required precise scheduling and organisation; however, we are pleased to say the project was completed on time and within budget. It will afford our client financial

"payback" within their 5 year target, whilst also predicting to reduce their CO2 emissions by an amount in excess of 250 tonnes.

The project entailed the installation of a new wiring control system, involving stand-alone PIR and microwave motion detectors, ambient light dimming, and integral fitting detectors within a range of new LED non-hazardous area fittings.

50 MOBILE TEAMS!

Z-Tech now has over 50 fully-equipped mobile teams.

The delivery of seven new vans in September 2011 takes the Z-Tech fleet into new territory – giving greater coverage throughout the UK.

As part of Z-Tech's commitment to carbon reduction, all vans use the latest generation of fuel-efficient engines and are fitted with speed limiters to further reduce consumption and lower our overall carbon footprint.



NEW WEBSITE

www.z-tech.co.uk has changed.

Our latest website is live and we are using it to update you on what's happening at Z-Tech, so log on and take a look at what we have on offer.

In the age of social media, we have included access to our new Facebook and LinkedIn social media pages, which have a steady update of news and activities.



ELECTRIFYING PACE FOR NEW INDUSTRIAL ENERGY MONITOR

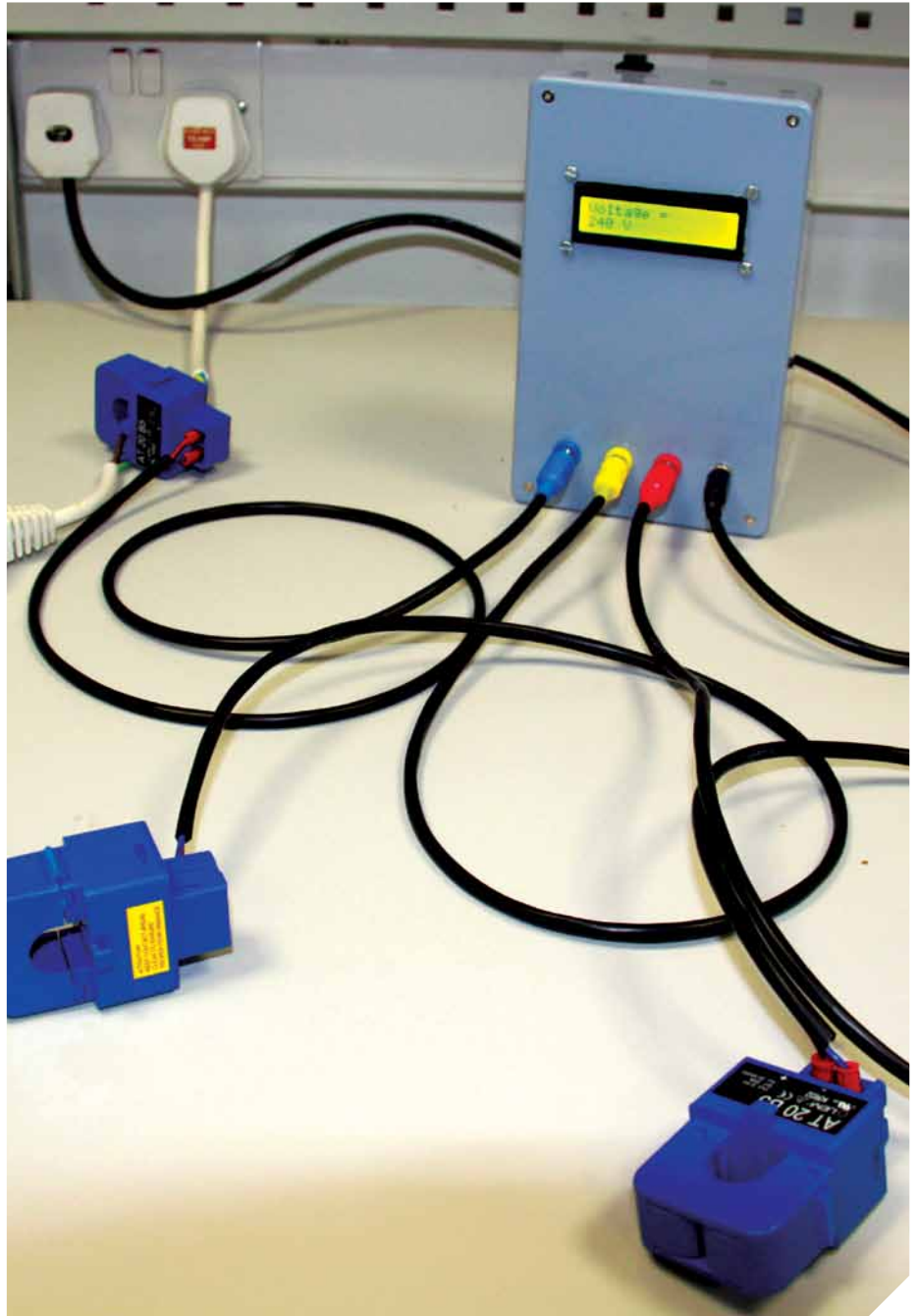
Z-Tech is investing in some interesting research and development; the first of these for NEWZ is our cost-effective, three phase industrial energy monitor.

Most people have seen the standard energy monitors used in the domestic environment, which are typically a guide to your energy usage.

Z-Tech has begun trials on a cost-effective industrial version for one of its blue chip clients. Pictured right, the unit will monitor three separate phases and wirelessly transmit this data to our Z-One for Energy Monitoring.

Alongside the obvious benefits of reporting energy usage, the system is able to quantify the real benefits to any energy saving technology installed and has the potential to influence the culture of an organisation, by ensuring individuals see the effect of their actions on environmental performance.

This system complements our more sophisticated energy monitors, which monitor current, voltage and phase-cycle to give a clearer picture of both consumption and power quality.



COCA COLA - ACOUSTIC CLEANING SYSTEM

Z-Tech are working with Coca Cola! We are yet again finding innovative solutions for industrial problems.

Mick Swinhoe (pictured right) has been working with Coca Cola on the adaption of an acoustic cleaning technique to help with the build-up of sugar in Coca Cola's sugar silos. The problem gives inconsistent level measurements as sugar sticks to the side of the silo and blocks the outlet. The solution – use sound waves to vibrate the sugar free of the silo. The device, a particularly large horn, is positioned within the silo and provides a burst of sound to free the sugar, maintaining a consistent flow and reducing associated cleaning and downtime costs. The system is adapted from a technique typically used in cleaning power stations.

Initial trials at one of Coca Cola's manufacturing plants proved successful for cleaning the silo, though due to the location of the plant close to residential properties, it is in the process of being re-located to a more isolated site.



Z-TECH WORK WITH BEAMEX CALIBRATION EQUIPMENT

Z-Tech is now working with Beamex, a leading company for providing calibration equipment to calibrate your onsite assets.

With this exciting new development, we are able to make Beamex affordable for smaller sites. As well as reducing the costs of the system, using our highly trained calibration technicians removes the need for in house training.

We are using Beamex Mc5 Multifunction calibrators on site to accurately calibrate instrumentation; we then upload the information to the Beamex software

centre for reporting and tracking assets. In turn, this will provide the condition status of assets and predict possible failure/replacement.



Z-TECH CONTROL SYSTEMS LTD
WORK WITH beamex
ONSITE CALIBRATION SERVICE
WITH SITE SPECIFIC DATABASE



GRAIN DRYER AUTOMATION FEATURES IN FARMERS WEEKLY – TWICE!

Z-Tech has been working with a local contract farming company to automate their grain drying system.

Across the country farmers could be losing millions of pounds when drying grain: if the grain becomes too dry, money is lost in reduced weight; if too wet, it could become mouldy and therefore less valuable.

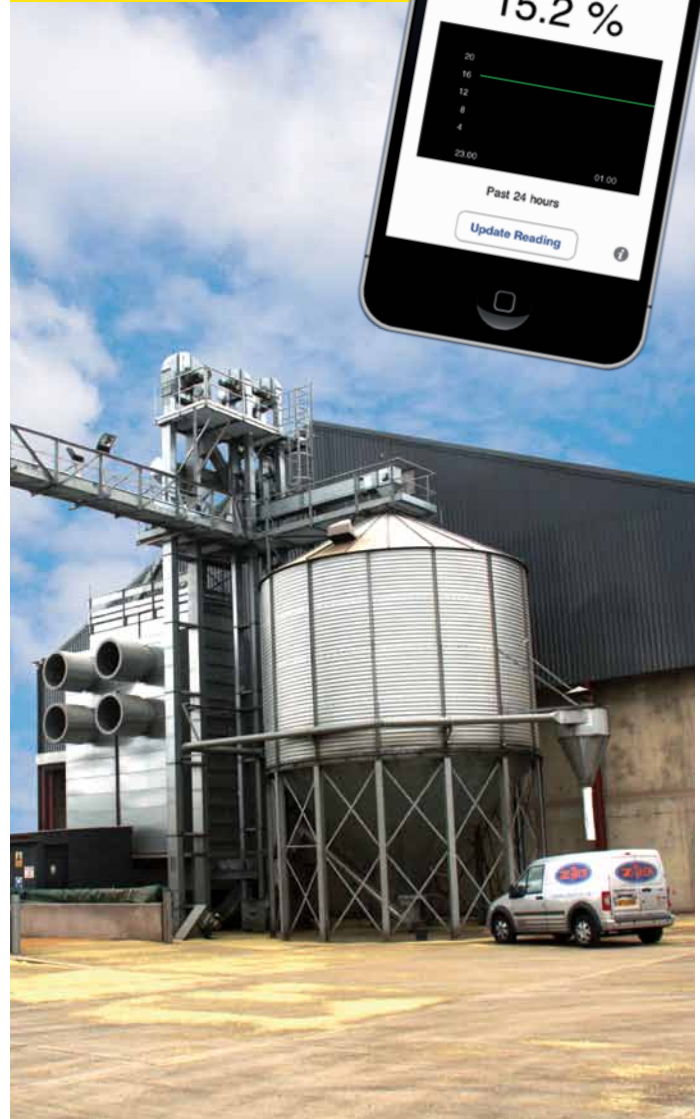
The solution appears simple: measure the moisture content and vary the speed the grain travels through the dryer. Unfortunately, this does not give accurate readings, as it takes over 20 minutes for the grain to go through the machine. Many companies have tried to automate in different ways, but Z-Tech has the answer – we have mounted two microwave probes, specially fabricated into the system, which measure the moisture as it enters and exits the dryer; one of our PLCs then controls the Dryer to respond accurately to changes in moisture.

James Peck from PX Farms is already predicting a saving of up to £40K in the first year.

We have had a large amount of interest in the system, following a recent feature in Farmers Weekly and our launch at UK Grain in Peterborough on 2nd November 2011.

With many farmers, contractors and grain drying companies contacting us to purchase our microwave moisture automated system, we have developed a product line to suit individual requirements. The system is either a total control package with fitting and support, or DIY option for monitoring and alert.

As featured in
**FARMERS
WEEKLY**



NEWZ MEETS TONY HAMILTON – OUR LATEST (PRV) PRESSURE CONTROL MANAGER

So Tony, what exactly is Pressure Control Management?

“Pressure Control saves water companies a huge amount of risk and cost by controlling pipe pressure; this limits bursting, DG2 issues and leakage, which in turn saves big bucks. For example, a single dual feed system in London can lose 1 mega litre of water daily, if it runs just 2mH over in the PMA.

I have worked on the largest PRV's in Thames Water over the last 3 Years and have gained an excellent understanding of how pressure control works and what the customer expects. The largest PRV had 7 controllers in one District Metering Area.”

Why did you join Z-Tech and what are your aspirations over the next 12 months?

“As Pressure Control Manager I want to give Z-Tech customers a ‘One Stop Shop’ experience. I believe that with Z-Tech’s ‘can do’ and ‘eagerness to achieve’ attitude we shall continue to build customer confidence that is scarce in this arena.

We can now offer a complete package when it comes to PRVs, and I want us all to become experts in our approach to improving our position in this market. I want to strive to exceed customer expectations and build customer relationships”

Tell us a bit about yourself.

“I’m a bike man: the Kawasaki Z1 (which I believe inspired the Z-Tech brand) was my dream as a lad, because it did what it said it would and was better, faster and more reliable than all its predecessors and competition!

My own beast, the 2008 Suzuki GSX1340R Hayabusa is as much, if not more so, an icon in the biking world, for all of the same reasons. Once ridden, why ride anything else? I feel it gives the same message we should as a company – only the BEST will do – Z-Tech, Control for the Future!”



NEWZ MEETS DR ANNA KOVACEVIC – SOFTWARE RESEARCH

Anna, tell us a bit about what you do on a daily basis and what research topics you're focusing on for Z-Tech at the moment?

"I mainly focus on developing our client's asset management websites, adding in new mathematical functionality and incorporating different methods of graphical visualisation, that help our clients to understand their data in new and interesting ways. It involves problem solving and generally ensuring our services are maintained.

As far as research is concerned, I'm developing fluid dynamics models to quantify uncertainties associated with flow meter measurements. Building up a more complete understanding of the external parameters influencing the measurement is particularly interesting for water companies, as it will help in

reducing flow measurement uncertainties. Analysis of historical flow data can also help to identify trends in measurement uncertainty with pipe age, diameter, material and seasonal variations.

Why did you join Z-Tech and what are your aspirations over the next 12 months?

"I love getting back to research: my PHD is in Astrophysics from Macquarie University, Australia, and although I'm still active in that field, the same principles are easily transferred into the Water Industry and I'm able to develop my expertise"

"I hope that working with other areas of the business, we will develop some interesting technology – so watch this space."



I mainly focus on developing our clients' asset management websites, helping them to understand their data in new and interesting ways

Dr Anna Kovacevic (pictured right)





WORK EXPERIENCE

The best way to learn about business is to experience it for yourself – Lewis, our 15 year old work experience student, was introduced to the world of Z-Tech for a two week work experience to remember!

Lewis sampled work at the London Underground and the HSBC data centre. As well as being involved with PRV installation field work, software engineering with the programming of his own temperature monitor and building the temperature monitor in our workshop, he also wrote his own e-NEWZ:

“Coming into any business for the first time can be a big deal and, for me, going into a work environment and working with and helping people in Z-Tech was

a very big jump from being in school all day. I was introduced to the employees and started to feel like a part of the business. Also, seeing the many different parts there are to a business in action, showed me that everyone in this business helps and relies on each other. I have really enjoyed my two week work experience at Z-Tech and I would like to thank everyone who has helped me and organized my stay.

Going into London underground's disused stations throughout my two day stay with Ajeet and his team, allowed me to learn about how the pumps work and how they make sure the water does not overflow the pumps in disused stations like St Williams Street.”

We wish Lewis every success in his studies and hope he gives us a call when he's ready for work.



Z-FEST

Z-Tech took over Milton Country Park for our summer social.

Roughly 70 friends of Z-Tech and Z-Tech employees spent a mostly sunny summer afternoon/evening at Milton Country Park on 6th August 2011. With plenty of BBQ food, hog-roast, refreshments and family activities, the fun went on till the early hours for those who camped.

Canoeing on the lake was provided by www.slipstreamcanoeguides.co.uk who did a great job, even with those deciding to take an 'unscheduled swim' part way around the lake!



Z-TECH GOLF DAY

Golf anyone?

Z-Tech hosted its first Golf Day at The Millbrook Golf Club, with over £1000 donated to Water Aid, while providing a great opportunity for like-minded customers to meet.

Whether first-time golfers, or those with a competitive handicap, all thoroughly enjoyed a sunny day in fantastic surroundings.

PGA Pro Rob Brightman was able to fine-tune seasoned golfers and give tips for novices to understand the game.

Throughout the 18 holes played, Rob had placed challenges for: the longest drive with a putter and nearest the pin wearing an eye patch.

Awards were given for:

1. Best Individual Score – Stuart Wallace (1st) (GSK), Andy Hemmett (2nd) (MGJB)
2. Best Scoring Team – Dave Tann, Andy Hemmett and Phil Shanahan (MGJB)
3. Par 3 Charity Challenge (Longest drive with a putter) - Scott Boobier (MGJB)
4. Nearest The Pin and Longest Drive – Mark Bowers (Z-Tech)
5. PGA Pro's Pick – Scott Louder (EMCOR) – pictured middle left, sporting new golfing glove and shoes especially for the day!
6. 3 consecutive balls in the lake – Rob Murkin (GSK)
7. Nearest the pin (eye patch) – Shannon Neyland (Z-Tech)

A big thank you to The Millbrook Golf Club and to all those who attended – we hope to see you at the event next year.





CONGO UPDATE:

Dr Anna Kovacevic is in the process of updating the Congo deforestation tracking site.

Z-Tech has recently completed vital upgrades to the Forest Monitor website that was constructed by Z-Tech at the beginning of last year. The Forest Monitor team

track the amount of deforestation currently occurring in the Congo, as reported by various state and departmental teams. Accurate monitoring ensures that the forestry sector develops in a sustainable and equitable way, which will protect the livelihoods of those indigenous peoples who depend on the forest.

The newly re-vamped website allows for effective data compilation and provides graphical analysis of the data, allowing the Forest Monitor team to make well informed decisions. The Forest Monitor team are a not-for-profit organisation and, in this case, their work is funded through the European Union.

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