



May 2016

Bulletin

Association of Electrical & Mechanical Trades

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Houghton International continues business expansion with multi-million pound Railway contract.

The Newcastle based company has secured a two year contract with Great Western Railway for the overhaul and repair of alternators for its high speed trains.

In February this year, the company paved the way to tender for the GWR contract by announcing they had retained their Rail Industry Supplier Approval Scheme (RISAS) certification.

The RISAS scheme provides a benchmark for quality in safety critical repair for the industry. It covers multiple product groups including:

Great Western Rail's High Speed Train

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Next AEMT Meeting



[Click Here to Register](#)
or
Call 01904 674 899

Wednesday, 18th May
Register now for the next AEMT meeting. A visit to SEW EURODRIVES UK head office in Normanton, West Yorkshire.
Tickets: £35 +VAT

Send us your News!

Please remember to keep us informed of your news so that we may publish it in our Bulletins.

Let us help. Even if you have some news to tell us, but nothing written.

admin@aemt.co.uk

AEMT Website

All the news found in this newsletter is also available to read on the new website.

Follow us on our social networks, or visit the site regularly for news updates.

www.theaemt.com/news

Successful Drives and Controls Expo for AEMT Members

Drives and Controls 2016 took place in April at the NEC Birmingham, in what should prove to be an even greater success than 2014's show. The expo expected to bring a footfall of 40,000+ visitors and stand space increased by 30% to make room for the increasing number of exhibitors.

A lot of the focus this year was on *Industry 4.0* and the burgeoning *robotics industry*. Mike Wilson, who spoke for AEMT Members last month from ABB held a seminar representing the British Automation & Robot Association.

People's minds are very much on the *EU referendum* coming up in June and Dr Scott Steedman from BSI outlined what it would mean for technical standards. More can be read on this through their publication here: <http://goo.gl/IN1Y7S>

The AEMT were represented well by it's members at the show who were enjoying the steady but consistent footfall:

Beatsons Fans and Motors who have been stocking and repairing industrial motors and fans since 1928 were promoting their own range of

equipment as well as their new partners, TEC motors, also members who had a popular stand. TEC have grown considerably since their start-up in 2006, they are currently celebrating their [10th year of trade](#).

Together with their partner Schleich GmbH, *Whitelegg's* busy stand featured a major presentation of advanced electric motor testing and condition monitoring instruments including the new MTC2 surge tester and MTC3 fully automatic production tester, which launched this year.

Motor manufacturers *WEG* had an impressive stand showing off their new range of IE4 LV motors.

Other stands were hosted by *Menzel, Lafert Motors, Drummotors and More*, Repairers *Sulzer* and *Rotamec* had large stands with a steady flow of customers. ■



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AC and DC traction motors, Motor Alternators, transformers and inductor coils, gearboxes, and oil pumps.

On securing the contract, Michael Mitten, CEO of Houghton International, commented: "Following a competitive tender process we are delighted to have been awarded the contract to repair and overhaul the HST alternators for GWR."

"We have significant experience in this area, having carried out a repair for GWR last year which led to improved performance of the alternator."

Prior to winning the contract, Houghton International had seen a steady growth in business, recently investing in plant and machinery, recruiting three new apprentices, three trainees and three additional members to its management team.

The multi million pound repair and maintenance contract starts this month and will see 108 alternators being overhauled over a two year period. To service the increased work load, Houghton International will be expanding into a new operations facility and be investing in more new machinery.

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Chris Robson, promoted to Sales and Marketing Director at Houghton International

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German engine manufacturer MTU, who secured the contract to overhaul the engines that drive the alternators, will be working closely with Houghton International.

Having worked in the Rail industry for more than 10 years and winning this contract, Houghton International is now looking to invest in a range of specialist services that it can offer its customers. By making good use of their expanding plant machinery and expertise in the industry, they can create innovative solutions to customer problems and improve the performance of electro mechanical equipment.

The company is positioning itself for further growth and have plans to achieve a £20million turnover by 2020. Chris Robson, who joined the sales team in 2014, is responsible for the sales in the Rail services division, which has delivered a number of multi million pound projects.

Following the GWR contract win, Chris Robson has been promoted to Sales and Marketing Director of Houghton International. Chris joins the board of directors following 10 years at the company in various roles, and brings a wealth of experience in both engineering and sales.

Michael Mitten supports the decision: “Chris has



Representatives from Houghton International, Great Western Railway and MTU on contract award.

been an integral part of the business for several years. Since taking on the Rail sales role Chris has consistently delivered results and has earned the respect of our customers.

“I’m confident Chris will drive the sales team forward and support Houghton International’s continued growth. I’m equally proud that all three of our executive directors started out on our shop floor and have risen through the ranks to become leaders in the business. This is a fundamental element of our culture and gives customers the confidence that we fully understand their needs, are capable of solving their problems and have the experience to be a truly innovative company.”

As Sales and Marketing Director Chris will lead the team to grow sales both with existing customers and by expanding in to new markets and new sectors. He comments: “Having worked as an electrical fitter myself I have a real appreciation for what our customers and the industry need and pride myself on delivering this.

“I’m delighted to have taken on this new role and I’m confident that with support of our experienced sales team, backed up by our operations teams who consistently deliver a first class service to our customers, we will continue to grow the business to meet our 2020 targets and beyond.” ■

Successful Bairds Malt kiln fan drive replacement

When leading UK malt producer Bairds Malt chose to upgrade the drive system in a crucial element of their operation, they turned to Gibbons to carry out the challenging project.

Bairds has served the global brewing and distilling industries since being founded almost 100 years ago, with a total annual production capacity of over 250,000 tonnes across six malt houses in England and Scotland.

At Bairds' Inverness facility, the existing system for controlling three huge kiln fans to dry malted barley included an Alstom MV31131 variable-speed drive. Although this equipment was still operational, it had reached an age whereby parts could no longer be sourced.

Production demands meant Bairds could not afford to risk the kiln being out of action for an extended period, so the decision was made to replace the equipment with a modern ABB drive.

Gibbons took delivery of the 1,120 kW low-voltage low-harmonic drive, which at 3.5 metres long and weighing 3.5 tonnes was the largest we have ever handled.

The drive was unloaded into our premises for the engineering team to remove its internal

modules.

This was done to make the main unit lighter and easier to transport and install at the Bairds facility.

The layout of the Bairds site meant the redundant drive had to be hoisted over the plant by crane, with the new ABB drive lifted in via the same route.

Access was at such a premium that the plant room's main door and timber frame were removed in order to create just enough clearance for the old drive to be removed and the new one to enter.

Once this delicate operation had been performed and the drive was in place, our engineers reinstalled the modules prior to testing and commissioning.

Bairds Malt have since reported that the drive is functioning perfectly and they are delighted with its performance. ■



Engineers look on as the drive is carefully lowered towards the plant room entrance

Menzel's 22 ton motor for Malaysia

Menzel Elektromotoren have constructed a 100% compatible replacement induction motor for a Malaysian power plant and are also ensuring its delivery, installation and eventual commissioning on site. The plant operators had turned to Menzel, because the special motor manufacturer had already carried out an earlier urgent order to their satisfaction. Featuring 1,300 kW rated power, 11,000 V voltage and a speed of 372 min⁻¹, the motor is designed for 36 tons mechanical tensile stress on the shaft.

The power plant needed the motor as a long-term replacement for an aged Mitsubishi motor, that drives a pump. Even for Menzel, who manufacture and deliver large motors up to 20,000 kW, this drive was an unusually powerful specimen. The 16-pole motor in frame size 900 weighs in at 22,600 kg and requires a ladder and platform for the operating staff due to its height of 4.70 m. To be painted and delivered, it had to be dismantled into individual component parts. In the second week of November 2015, the customer attended a test run in Menzel's in-house load test field in Berlin. Commissioning will take place on site in Malaysia in 2016 by Menzel's engineers. ■

Fletcher Moorland release two educational videos



What goes into repairing industrial automation equipment?

This video shows the process Fletcher Moorland goes through in repairing and refurbishing Industrial Automation equipment, in this instance it is a Miconrol AC drive regulator from a customer in Norway.

<https://youtu.be/Sr4SiuggTwg>

The refurbishment process for a Siemens servo motor 1FT6044

The complete repair and refurbishment process of a Siemens servo motor through the Fletcher Moorland workshop.



https://youtu.be/EwI86_n8Tq8

Parsons Peebles Group Further Enhances their UK Electromechanical Service Capability with Taylor & Goodman Acquisition.

Parsons Peebles Group, a Clyde Blowers Capital company, is pleased to announce the acquisition of the Reading headquartered, Taylor & Goodman Ltd. Taylor & Goodman are a fast growing provider of electromechanical services predominantly to the water sector with three UK facilities.

The acquisition, which was finalised on 31st March, provides the Parsons Peebles Group (PPG) with expanded product and service capabilities and a network of UK locations which now numbers 13 in the UK. This acquisition comes on the back of PPG's integration of Anstee & Ware into the Group in October last year and truly places PPG as a leading UK electromechanical services provider.

Frank Barrett, CEO of the Parsons Peebles Group, commented, "I'm excited to welcome Taylor & Goodman into our Group. This acquisition gives us excellent local presence in the South East and an impressive list of blue chip clients to add to our growing customer base. We're particularly happy to offer an enhanced list of site and project services through the over 60 skilled members of T&G that have just joined us."

"This acquisition demonstrates our intent to become the no.1 UK supplier of electromechanical services. We now have an extensive LV to HV electrical new build and service offering which is complemented by capability on pumps, gearboxes, compressors and other mechanical equipment. PPG now offers even broader electromechanical service agility backed up by OEM credibility and over 340 UK employees."

Pete Ryder, Managing Director of Taylor & Goodman added, "Taylor & Goodman has enjoyed excellent growth in the last few years and we're very enthusiastic about the further expansion plans PPG have for us within their Group. Under new ownership I'm satisfied T&G will be able to secure further success with the major water utilities, industrial customers and others with the broader offering and customer access we'll now enjoy." ■



Motor & Generator - Service & Manufacture



Pete Ryder, MD of Talyor & Goodman, "We're very enthusaistic about the further expansion plans PPG have for us within their Group."

TEC Motors Celebrate 10 Year Anniversary

Celebrating a decade in the Power Transmission business the success story of TEC in such a short space of time brings a breath of fresh air in these times of austerity and continued talk of recession. Since their inception in 2006 working out of 5,000 sq ft with 2 Peugeot vans and a team of 6 people TEC now boasts a total working area of 65,000 sq ft a team of 40 people with satellite branches in Sheffield, Glasgow and Cardiff. Plans are currently being made to open a South East and South West branch before the end of 2016.

TEC Electrics Motors has built an enviable company which now sells over 150,000 motors annually and is targeting for sales in excess of £16m this financial year.

With new investment, their Midlands HQ warehouse facility has increased to 40,000 sq ft with over £7m worth of stock, with each TEC owned 5,000 sq ft branch holding a replicated stock for same day despatch.

TEC are bringing a new dimension to Power Transmission supply with the introduction of Geared units, higher motor powers exceeding 355 frame are proving to be a "one stop shop"

for the industries power transmission needs.

TEC's aim in the coming 5 years is to provide fast emergency response times on breakdown business via their network of local distributors backing them up with localised TEC stock.

Gareth Richardson said "Our aim is to be able to provide replacement products to site within 2 hours in any location in the UK, 24 hours a day 365 days a year"

Gareth added," We have years of experience prior to starting TEC and we were aware there was a position in the market for a dynamic company who were willing to put in the extra mile in terms of back up, service and supply".

The Team at TEC are highly motivated, dedicated and take great pride in what they do which is to provide a service second to none, offering Total Engineering Commitment. ■



The EMiR Open Day 2016 At the National Space Centre, Leicester

Thursday, 30th June 2016



EMiR Software has teamed up with the UK's centre of excellence in Space exploration and will be taking guests on an exciting mission of innovation and technology.

In the morning you'll discover brand new EMiR products that will revolutionise the way you utilise your data and stay informed, see the latest updates and features in Standard & Professional and share in the development programme of EMiR products.

Now in its 22nd year of development EMiR continues to meet and exceed the ever changing needs of its diverse user base around the world.

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In the afternoon you'll be introduced to the history of the Space race in a maze of fascinating galleries, have an astronaut's view of the stars in the 360 planetarium and save the world in our very own space mission.

Dress Code - Suited and booted, Space helmet optional!

The Open Day is an exclusive chance to see the following updates:

Product Launch; EMiR Task Centre

- Delivers automatic email and text alerts from EMiR driven by key events
- Enables live integration with Exchange, Parcel Force and other 3rd party products
- Setup your own reports and schedule them to run via email to a specified distribution list
- Allow workflow outside of EMiR, such as PO approval processing on the fly

Product Launch; EMiR Workshop Routing

- Receive jobs in the workshop recording them on a wireless tablet
- Route jobs to additional processes with a wealth of e-forms including receiving, inspection, utility (cleaning), mechanical, winding, assembly, etc
- See how data is compiled in reports and

automatically synchronised with EMiR

EMiR CRM V6

Find out the latest fantastic additions to this key EMiR Extension

Highlights of the latest EMiR developments produced in the last 12 months

The EMiR Product Development Roadmap – what is planned going forward?

...and more!

- A chance to Save the world with a Space Mission
- Time to explore the galleries and planetarium
- Win prizes in our competition
- Exclusive offers available only to attendees on the day

Who should attend?

Whether you are an existing user of EMiR or are simply interested in the benefits of an integrated business solution that is written for the electro-mechanical industry, the EMiR Open Day is for you. Places are limited to 50 this year – so book early!

Those interested in EMIR, please call 0845 009 4588 or email info@solutionsinit.com. The EMIR team would like to hear more about your business and the challenges you face. ■

EMiR Open Day 2016 Preview Video

For those of you who have not attended an open day before, and are curious to know what to expect, Solutions in IT, the developers of EMiR software, have compiled this short preview video.

The video gives a chance to see some of the highlights of the 2015 Open Day as well as what to expect this year at the National Space Centre.

The link below will take you to a YouTube page where you can view the video, make sure you are connected to the internet, or if you are reading the hard copy edition of this newsletter, follow the link in the caption. ■



<https://youtu.be/BWlqS63Znx8>

New AEMT Members

Member:

AIR COMPRESSORS & BLOWERS NORTH LTD

Unit 35 Matrix@Dinnington Business Park, Nobel Way, Dinnington, Sheffield S25 3QB
Tel: 01909 547220
Email: myles.mander@acbnorth.com
Website: www.acbnorth.com
Contact Name: Myles Mander

CLENG LTD

Unit 10 Quarrybank Industrial Estate, Quarrybank Street, Birkenhead, Wirral, Merseyside CH41 2ZD
Tel: 0151 512 9825
Email: colin.leigh@cleng.co.uk
Website www.cleng.co.uk
Contact Name: Colin Leigh

EM DIAGNOSTICS LTD

20 Greystone Road, Alford, Aberdeenshire, AB33 8TY
Tel: 01975 562446
Email: mcsa@consultant.com
Website: www.mcsamotor.com
Contact Name: William Thomson

A.D. REFFOLD (ELECTRICAL) LTD

7 Hesse Road, Hull, East Yorkshire HU3 2AA
Tel: 01482 320638
Email: adr@dreffold.co.uk
Website: www.adreffold.co.uk
Contact Name: Scott Baines

SIEMENS POWER GENERATION SERVICES

CA Parsons Works, Shields Road, Newcastle NE6 2YL
Tel: 0191 276 1188
Email: graham.hartley@siemens.com
Website: www.siemens.co.uk
Contact Name: Graham Hartley, Jim Spencer

International:

DAVIES & MILLS WLL

Building 1492 Road 5228, Ras Zuwayed, Kingdom of Bahrain
Tel: 00973 39725445
Email: martin.stratford@d-mills.com
Website: www.d-mills.com
Contact Name: Martin Stratford

PT MEGA DAYA

Jl. Pulo Kambang, No. 32 Jakarta Industrial Estate, Pulogadung, Jakarta 13930, Indonesia
Tel: 0062 2124600190
Email: marketing@megadaya.com
Website: www.megadaya.com
Contact Name: Sarila Danubrata

Hazardous Area Member:

ESSAR OIL (UK) LTD

5th Floor Administration Building, Stanlow Manufacturing Complex, Ellesmere Port, Cheshire CH65 4HB
Tel: 0151 350 4111
Email: stuart.rigby@essar.com

Website: www.essar.com

Contact Name: John Bowness

Associate Member:

TECO WESTINGHOUSE

7 Dakota Avenue, Salford, Manchester M50 2PU
Tel: 0161 877 8025
Email: enquiries@teco-group.eu
Website: www.teco-group.eu
Contact Name: Stuart Nuttall

Job Positions Available

Sales Engineer/Technical Sales (automation/electrical)

CP Automation Ltd

Deadline: May 9th

Location: Scunthorpe

Salary negotiable depending on skills and experience. We are interested to hear from both experienced Sales Engineers as well as Service Engineers looking to move into the sales field.

We specialise in the supply, repair and field service for industrial electronic boards, PLC's, AC Drives, Resistors, DC Drives and Inverters. Due to recent expansion we now require a Sales Engineer to join the Service Division of the Company who are responsible for the on-site and in-house repair and replacement of Drives and Motors.

With a proven track record in sales and business development, you will be an excellent

Job Positions Available continued...

communicator and motivated to succeed, increasing sales turnover by developing new and existing business accounts.

Alternately you may be an experienced Service Engineer with good communication and people skills looking to move into sales as career development

Ideally you will have an understanding of automation / drives / motors or a similar field such as electrical maintenance.

Salary will be negotiable depending upon experience. Package to include company car, laptop, mobile phone, performance related bonus.

Apply Now with your CV to chris.chu@cpaltd.net

Support Engineer

Engineering Carbon Products

Deadline: May 15th

Location: Croyden

Normal Hours – 08.30-16.30hrs, Mon-Fri.

ECP manufacture carbon brushes for a very broad range of 'in-service' industrial drives and so our customer base primarily consists of UK Rewinder's through to end users which include plastics factories, quarries & recycling plants to name a few. We also supply to a number prominent UK companies as well as exporting to multiple locations worldwide.

Although carbon brush manufacture forms our

core business, we also generate additional income through the sale of maintenance products such as commutators, sliprings, brushgear, rewinder consumables and so on. We also look to take on bespoke projects where at all possible. Use this link to view our range of products: http://www.engineeringcarbonproducts.com/carbon-brushes-spares_catalogue.php

The nature of this business demands a fast response time at all levels in order to keep our clients production lines and/or plant up & running and our ability to successfully achieve this runs hand-in-hand in securing our long term future.

With this in mind, we need a very capable and competent all-rounder who has a good understanding of electrical & mechanical engineering practices and preferably with experience in the 'electric motor repair industry' and working on ac & dc machines as the majority of our work relates directly to this field of engineering.

You will be based in our sales office and will learn how to handle all our sales inquiries, work-up quotes, and progress these through to manufacture upon order.

Candidates will need to be good team players as our team is relatively small in size and so we need to remain flexible in our approach and draw on each other's experience continually to develop quotes and secure sales. This bodes well to preserve our team as a team and not as a group of

individuals.

As well as being able to work in an organised and logical manner you will also need a keen eye for detail, be able to work swiftly but accurately, be PC literate & have good communication & telephone skills.

Because we are a small team unit and are in constant contact with our suppliers & customers you will need to remain friendly, proactive, diplomatic and upbeat at all times in order to secure your future with us.

You will also need to be capable of integrating satisfactorily within the present group without causing any detrimental effects on them and you'll need to be flexible, adaptable and have a 'can-do' attitude to secure your position in ECP.

Salary: Starting @ £24-25k plus a three stage performance/salary review after 6, 12 & 18-months. During each review we will look to increase your salary up to a maximum of circa £2k over the three reviews (this will be on top of any normal annual salary increase which normally take place in February).

A 3-month minimum probation period shall apply.

Contact Details:

If you consider yourself reliable, a good team player and ready for a new challenge in 2016 then please send your letter of application and CV to:-

Mr G. Forde.

Engineering Carbon Products,

Job Positions Available continued...

Unit B5, Connaught Business Centre,
49 Imperial Way,
Croydon,
Surrey.
CR0 4RR

email: garry@ecpsales.co.uk

Workshop Technician

Engineering Carbon Products

Location: South East

Deadline Date: 15 May 2016

Normal Hours – 08.00-16.30hrs, Mon-Thur & 08.00-16.00hrs, Fri.

ECP manufacture carbon brushes for a very broad range of 'in-service' industrial drives and so our customer base primarily consists of UK Rewinder's through to end users which include plastics factories, quarries & recycling plants to name a few. We also supply to a number prominent UK companies as well as exporting to multiple locations worldwide.

Although carbon brush manufacture forms our core business, we also generate additional income through the sale of maintenance products such as commutators, sliprings, brushgear, rewriter consumables and so on. We also look to take on bespoke projects where at all possible? Use this link to view our range of products; http://www.engineeringcarbonproducts.com/carbon-brushes-spares_catalogue.php

The nature of this business demands a fast response time at all levels in order to keep our clients production lines and/or plant up & running and our ability to successfully achieve this runs hand-in-hand in securing our long term future.

With this in mind, we need a very capable and competent all-rounder who has a good understanding of engineering practices at a 'hands-on' level such as manual grinding, drilling, lathe work (to within defined tolerances) & band-sawing/splitting. In addition to these, we also need you to cover a broader skills base which includes flexible cable tamping, manual flexing, soldering, packaging & dispatch, receiving-in/booking-out raw materials & and maintaining in-house cleanliness & tidiness.

All aspects of good Health & Safety practices are required to be adhered to at all times.

Many of our hands-on skills are unique in their nature and 'in-house' training will be given as required.

The successful candidate will take pride in their work at every level, be fast, accurate and conscientious, take a personal interest in the vast range of styles that we produce and be able to recall how these were made or have the self-initiative to back-work the best & most efficient way to manufacture.

Efficient work ethics at all levels allows us to gain the advantage in an ever competitive marketplace

and ultimately secure our own long term futures. Candidates will need to be good team players and be capable of integrating satisfactorily within the present group without causing any detrimental effects on our team. Because we're a small group, you will need to be flexible, adaptable and have a 'can-do' attitude to secure your position in ECP.

We encourage everyone to interact amongst each other freely and to bounce ideas around as necessary to resolve difficult tasks or to draw upon existing experiences and this bodes well to preserve our team as a team and not as a group of individuals – in effect, an autonomous team that can run by itself with minimal management input and where high levels of trust are extended.

Compatible experience where we envisage skills could be cross-transferred:-

machine operators; milling, grinding, turning, CNC mechanical engineers/fitters

time-served mechanical apprenticeship semi-skilled engineers

manufacturing experience gained through working in a factory i.e. kitchen/wood furniture/metal fabrication

Salary: Starting @ £19-20.5k plus a three stage performance/salary review after 6, 12 & 18-months. During each review we will look to increase your salary up to a maximum of circa £1-1.5k over the three reviews (this will be on top of any normal annual salary increase which normally

take place in February).

A 3-month minimum probation period shall apply.

Contact Details:

If you consider yourself reliable, a good team player and ready for a new challenge in 2016 then please send your letter of application and CV to:-

Mr G. Forde.

Engineering Carbon Products,
Unit B5, Connaught Business Centre,
49 Imperial Way,
Croydon,
Surrey.

CRO 4RR

email: garry@ecpsales.co.uk

AEMT Dates for Diary

2016

May 18th	AEMT Member Meeting
June 8th	AEMT AGM
June 14-16th	PCIC Conference, Berlin
June 21-23rd	Powergen Europe, Milan
June 28-30th	CWIEME Shanghai
Sept 14th	AEMT Council Meeting
Sept 20-22nd	Powergen Asia Seoul
Sept 28th	AEMT Conference
Oct 11-12th	Motor Summit, Zurich
Oct 26th	AEMT Member Meeting
Nov 11-13th	CWEIME Bangalore
Dec 7th	AEMT Council Meeting

AEMT Training Calendar

2016

April 28-29th	Loughborough	Hands-on Refresher	Mod 3
May 10-11th	Loughborough	Ex Theory Course	Mod 1
May 12-13th	Loughborough	Ex Hands-on Course	Mod 2
May 17-18th	Loughborough	Hands-on Refresher	Mod 3
May 23-24th	Malaysia, KL	Ex Theory Course	Mod 1
May 25-26th	Malaysia, KL	Ex Hands-on/Refresher	Mod 2R
June 7-8th	Loughborough	Hands-on Refresher	Mod 3
June 20-21st	Aberdeen	Ex Theory Course	Mod 1
June 22-23rd	Aberdeen	Ex Hands-on/Refresher	Mod 2R
August 29-30th	Philippines	Ex Theory Course	Mod 1
August 31-1st	Philippines	Ex Hands-on/Refresher	Mod 2R
September 6-7th	Loughborough	Ex Theory Course	Mod 1
September 8-9th	Loughborough	Ex Hands on	Mod 2
September 13-14th	Loughborough	Ex Hands on Refresher	Mod 3
September 19-20th	Thailand	Ex Theory Course	Mod 1
September 21-22nd	Thailand	Ex Hands-on/Refresher	Mod 2R
October 11-12th	Loughborough	Ex Hands-on Refresher	Mod 3
October 17-18th	Singapore	Ex Theory Course	Mod 1
October 19-20th	Singapore	Ex Hands-on/Refresher	Mod 2R
October 31-1st	Aberdeen	Ex Theory Course	Mod 1
November 2-3rd	Aberdeen	Ex Hands-on/Referesher	Mod 2R
November 21-22nd	Dubai	Ex Theory Course	Mod 1
November 23-24th	Dubai	Ex Hands-on/Referesher	Mod 2R
December 6-7th	Loughborough	Ex Theory Course	Mod 1
December 8-9th	Loughborough	Ex Hands on	Mod 2
December 13-14th	Loughborough	Ex Hands on Refresher	Mod 3