



**Newcastle  
University**

**School of Chemical Engineering and  
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**PACT: Partnership in Automation and Control Training**

**IGDS: Integrated Graduate Development Scheme**

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## **Copy of PACT\_News emailed to the PACT community on 16th April 2009**

Hello

The last PACT Newsletter was in July 2007 so this one is long overdue. At least with such a long interval there are plenty of things to tell you about.

### **Revised Brochure**

The brochure for the IGDS has been revised to reflect the many minor changes that have occurred over the last couple of years. A copy will shortly be sent to everybody for whom I have a current address. Please pass it on to anybody who you think might be interested in any of the modules or indeed the Scheme as a whole. I have plenty of spare copies.

### **Old and New Module**

The Electrical and Electronic Principles module (CPE 8364) is no longer available due to lack of demand. Out of the last three module cycles, E&EP had to be cancelled twice and on the third occasion ran with just three delegates and made a significant loss. Even I recognise that is not sustainable so the Local Management Committee (LMC) agreed that this should no longer be offered.

In its place we are introducing into the cycle a new module on Process Analytical Technology (CME 8392), a detailed specification for which will be put on the PACT website shortly. This will occur for the first time in May 2010 (PA/163).

*The aim (of the new PAT module) is to provide a thorough grounding in the principles, technology and practices of analytical measurement, with an emphasis on the specification, installation and operation of the types of on-line analyser and sampling systems commonly used for the monitoring and control of industrial plant and processes.*

This has provided the opportunity to transfer material on chromatography and other analytical measurements from the Instrumentation and Measurement module (CPE 8366) into the new module. The I&M module was bulging at the seams with content so that will create a bit more space for the remaining subjects.

### **Optional Modules**

For delegates working towards the MSc degree or Diploma, there has always been the constraint of a maximum of three (out of four) foundation modules for which credits can be counted. Following the withdrawal of the E&EP module, which was one of

the Foundation modules, and the introduction of PAT which is optional, the constraint has become meaningless and has been removed. So all of the modules are now optional, apart from the Industrial Project (CME 8398) for the MSc, and the regulations for the MSc and Diploma have been revised accordingly. This provides more flexibility and is of benefit to delegates.

### **Registration and Fees**

There have been several changes in terms of the arrangements for registration which, amongst other things, relate to the payment of fees. This has come about through changes that have been made elsewhere in the University and we are bringing the PACT arrangements into alignment. There is nothing untoward here: as far as I am aware there is no downside to this other than, inevitably, additional administrative effort for Yasmin and myself.

Hitherto delegates could register for the MSc degree or the Diploma, or do modules on an occasional (assessed) or ad-hoc (not assessed) basis. Occasional and ad-hoc delegates were never formally registered per-se. The fees for all were processed through the PACT office.

With the new arrangements, every delegate is formally registered, whether that be for the MSc degree, Diploma or under IGDS Modules. There is still the flexibility to transfer between registration categories. For example, delegates may do several modules registered under IGDS Modules and, once they have committed themselves, transfer to the MSc degree. The flexibility to suspend registrations when delegates become inactive still exists, retrospectively if necessary.

Payments can still be made on either a module-at-a-time basis or on a lumpsum basis. Also, the basis of payment can still be changed with the same sliding scale for discount according to number of modules already done. However, payment is now only progressed by the PACT office with the processing being done by the Finance Office.

### **Login Codes**

One benefit of the new registration arrangements is that every delegate will now have his/her own unique login code for access to the University's computer network. In the past, for modules for which access to Matlab/Simulink was required for lab sessions, we had to make special arrangements for all occasional and ad-hoc delegates, which was something of a pantomime.

So now, whenever a delegate is registered, the University's computer service (ISS) generates an email account and password and a letter is sent out to that effect. Recently registered delegates should remember this, longer-in-the-tooth delegates may not.

The plan is that as each module comes up, Yasmin will email delegates booked onto that module asking them to contact ISS for their email accounts and passwords. Once received, the password can be changed to something more memorable. This way, sooner or later, everybody will know their account details. There are no forms to be filled out.

### **Wireless Network**

A dedicated PACT wireless network has been established in Merz Court for which IGDS delegates will be provided with the top secret password. Coverage is generally in the area of the conference and seminar rooms (C202 and C203) that we make use of for modules. The network will enable delegates who bring their own laptops to

access the internet and keep on top of emails etc during the course of a module. It is not intended for surreptitiously watching the cricket whilst I'm teaching!!

### **Accreditation**

As you know, the MSc in Process Automation is accredited by the IChemE, IET and InstMC, the details of which are on the PACT website under the IGDS menu. Accreditation is only over a specified horizon which is different for each of the three institutions. Two of these lapse in 2009 and the third in 2010. I am therefore in the early stages of the process of applying for re-accreditation.

I am hoping for a single joined-up accreditation exercise by the three Institutions, using a common set of documentation, and for some harmonisation of the period of accreditation. I have asked that it be combined with the accreditation of the full-time MSc in Applied Process Control, also offered within CEAM, which seems to make sense. Whether the two MSc courses have a dedicated re-accreditation again, or it is combined with other degree courses and/or other Schools within the University is out of my control. We shall see.

Whilst the Scheme is already accredited and, in my opinion, is in good health from the perspective of academic practices, quality procedures and so on, automatic reaccreditation cannot be presumed. The accreditation visit will almost certainly take place during the week of a module so that the assessors can meet delegates and get independent feedback. I will keep you in the picture on developments.

### **External Comment**

As you will be aware, there is an External Examiner appointed for the IGDS who, for the time being, is Professor Nina Thornhill of Imperial College. In essence, the role of the EE is to have oversight of the assessment process (exams, assignments and dissertations) for the Scheme. Amongst other things that involves checking upon the academic standards involved and making independent comment on the appropriateness of the assessment arrangements.

In her official annual report to the University for the academic year 2007/08 she made the two following observations:

*The output standards are excellent. In my opinion they meet and exceed the education requirements of UK-SPEC, the UK Standard for Professional Engineering Competence published by the Engineering Council.*

*The output standards achieved by students are very high in my opinion. The programme offers modules and an MSc to professional control engineers with industrial experience. The quality of coursework and dissertations is very high indeed and the exams are stretching. There is no similar programme for comparison: however, I think that students taking a one year taught MSc immediately after an undergraduate degree would lack the experience and know-how to do coursework and dissertations of a similar standard.*

Comment such as this can do the Scheme no harm. I would like to put on record my thanks to all delegates who have worked so hard to achieve such standards and to Nina for her efforts. It will not be obvious to the victims at the time, but Nina's thoroughness results in greater clarity and consistency with the exam papers.

### **Congratulations**

Congratulations to Sean Atkinson (Roche Products), Paul Janney (Cemex), Richard Salliss (ABB), Gerard Stephens (Corus) and John Wilson (Huntsman Tioxide) who

have all completed the MSc/Diploma in the last couple of years. Both Sean Atkinson (2007) and Gerard Stephens (Corus) received the ISA prize which is awarded annually 'to recognise achievement and to promote the industry'.

### **Module Bookings**

There was a mini tsunami of bookings in the first half of the current academic year. Bookings for two modules were in double figures and there was even a waiting list for one. However, after the high tide comes the low tide and there is now something of a lull. I'm not sure whether that is due to delegates suffering from module fatigue, or to cuts in training budgets, or both.

There is a leaflet about to be circulated for the Batch Processing and Automation module (PA/152) in May for which I have attached the pdf file. If you are interested in this please get in touch and/or pass on to others to whom you think it could be of relevance.

Upcoming modules are as follows:

<i>Ref no</i>	<i>Month</i>	<i>Title</i>
PA/152	18-22nd May 09	Batch Processing and Automation
PA/153	15-19th June 09	Maths and Matlab
PA/154	13-17th July 09	Optimisation & Scheduling
PA/155	14-18th Sept 09	Chemical Engineering Principles
PA/156	12-16th Oct 09	Fuzzy, Neural and Expert Systems
PA/157	9-13th Nov 09	Classical Control Systems Design
PA/158	7-11th Dec 09	Management of Automation Projects

### **PACT Website**

Much of the information on the PACT website has slowly got out of date. Revision and updating is well in hand and should be completed within a few weeks. Let me know if you spot any mistakes.

### **New Delegates**

A welcome to all of the following new delegates who have done at least one module in the last 18 month cycle:

Matthew Bell (BP Exploration, Shetland), Eugenio Constantino (BP Exploration, Sunbury), Giuseppe Elia (Genzyme, Suffolk), Tanja Goodall (Intel, Dublin), Andrian Harsono (BP Exploration, Middlesex), Dulce Henriques (BP Exploration, Angola), Martin Hobbs (BOC, Rotherham), Daniel Jones, James Mellor and David Murray (Sellafield Ltd, Warrington), Chuma Nwachukwu (Shell, Nigeria), Marie O' Brien (Perceptive Engineering, Warrington), Stuart Paterson (RWE npower, Motherwell), Scott Turner (Emerson, Leicester), Itaz Virk (BP Exploration, Shetland), George Willcox (BP Chemicals, Hull).

Apologies in advance if I have missed anybody out.

### **Handbook**

Many of you will be aware, and others will no doubt be amazed to hear, that my Process Automation Handbook was finally published by Springer in late 2007. As it appears to be a well kept marketing secret please find attached a flyer produced by the publisher. Weighing in at 2.18 kgs it makes an excellent doorstop.

The LMC has agreed that the Handbook is essential reading for all IGDS delegates. A bulk purchase of copies has been made for PACT purposes and delegates are able to buy copies at the discounted price of £140 if collected in person or £150 if posted. Payment may be made by cash, credit card or by means of the same order/invoice as used for paying for a place on a module.

I would like to think that the Handbook will become a trusted and reliable source of information and knowledge, not just for IGDS delegates but throughout our industry. It would be especially pleasing to see it being used as a resource by practising engineers and being quoted as an independent point of reference for projects, technology, etc.

I am now beginning to get my head around a second edition and, in particular, identifying new topics/chapters and ones that will need upgrading. But you may have to wait a while so can't use that as an excuse for not buying the first edition!

### **Summer**

I wish you all well for the coming summer: let us hope that the summer of 2009 is a good one. I hope to be sneaking off to Croatia for the odd week's sailing here and there but will, as ever, be accessing my emails on a remote basis.

Jon