

The  
University  
Of  
Sheffield.

Department  
Of  
Computer  
Science.

## Minutes Meeting of Industrial Liaison Board

Date: 12 May 2010

Present:

Mandy Chessell (Chair)	[MC]	IBM
Fabio Ciravegna	[FC]	Departmental Chair
John Brown	[JB]	Ask4
Sam Chapman	[SC]	K-Now
Rob Chorley	[RC]	Thales
Tony Cowling	[AJC]	Accreditation and BCS contact
John Derrick	[JD]	Head of Department
Matt Dudbridge	[MD]	RBC Capital Markets
Ed Dunhill	[ED]	Microsoft
Alex Healing	[AH]	BT
Antony Jukes	[AJ]	Evo Technical Solutions Ltd
Phil McMinn	[PSM]	Director of Enterprise Computing
Chris Murray	[CM]	EpiGenesys
Siobhan North	[SDN]	Deputy Head of Department Director of Teaching
Stephen Rigby	[SR]	Evo Technical Solutions Ltd
Greg Whitfield	[GW]	Lightworks
Kathryn Roden	[KMR]	Minutes Secretary

**Apologies** Tom Crayford (Student Representative), Simon Fisher (IBM), Anthony Fretwell-Downing (Fretwell Downing Group), Stuart Green (ZooDigital), Lisa Hyman (Accenture), Paul Marrow (BT), Mark Shackleton (BT), Andrew Sithers (Microsoft), Richard Warden (Software Futures), Domonic Watts (Microsoft), Chris Wicks (Accenture).

### 1. Welcome and apologies

**Noted:** MC welcomed the committee and acknowledged the apologies.

### 2. Minutes of last meeting

**Noted:** It was agreed that the minutes of the last meeting were a fair and accurate record. Two minor amendments were made to the minutes.

### 3. Head of Department presentation on the Department

#### Comments arising during presentation

**Noted:** AJC commented that a possible source of income would be to increase the amount of money the students pay. This would mean that we would have to do more to make it worthwhile for students to come, so they are getting value for money.

AJ asked if there were any strategies in place for getting additional revenue. JD responded that much of the teaching is research based – an area can become strategically important, so they teach in that area which filters down to under graduate level. FC added that there is lots of cross departmental research where there are opportunities to apply for grants. AJ asked who identifies these opportunities. FC responded that there are two support officers who proactively go out and talk to people. There is also a specified Income Capture Officer.

MC asked if this would change the degree systems. JD responded that it may affect research which could then filter down to undergraduate teaching.

FC commented that the sizes of grants are increasing, although there are less of them so it is important that the University as a whole can work together to get these grants.

**Noted:** MC asked if people are coming to the University from local areas, or if there are opportunities for e-learning or remote teaching. JD responded that e-learning has not really taken off or developed. Generally home students will go to a local university. AJ commented that it is a better way to learn with people around you.

JD mentioned about remote campuses overseas, like the Nottingham campus in Malaysia. AJC commented that it is not generating the income that was expected. JD commented that there is much more emphasis on supporting our students, with websites, virtual learning and team projects.

MC commented that the younger generation are much happier to use things like instant messaging rather than talking face to face, so maybe e-learning could be a good idea.

FC commented that they are starting to think about a digital region – set up for students to use remotely so students can go to lectures even if they are ill. However we have to think about university experience and consider that the discipline of remote study is hard.

**Noted:** SDN told the board that last year's project winner, Chris Green, also won the SET project award and that epiGenesys are looking to commercialise his idea.

**Noted:** JD reported that only four other departments in the whole country received 100% in the National Student Survey.

**Noted:** The faculty are looking at how to increase post graduate research students. Not just for financial reasons, but to try and bring in and invigorate different areas of intellect.

**Noted:** JD commented that the department hopes to get at least one appointment resulting from the Faculty Prize Lectureships of which there will be 5 appointments over the 7 departments.

# Head of Department Presentation:

## ILB

May 2010

## Agenda

- 12:00 Start + Minutes etc
- 12:15 HOD presentation
- 12:30 Placements and Projects
- 12:45 Presentations: Gonserys and Phil Green
- 13:00 Lunch - Curriculum review
- 14:00 Student poster session.
- 15:30 Discussion and pick best poster
- 16:15 IBM Guest lecture and Prize presentation

## Challenging times for HE

Downward pressure on budgets - now and anticipated.

'Efficiency savings' in current teaching grant.

Research council budgets under pressure.

## Work at Sheffield to:

- Control staffing costs - voluntary severance schemes
- Look closely at our estate, space usage and carbon footprint
- New income generation - international strategy
- Flexible ways of working

## Engineering @ Sheffield

Strong financial and academic position.

Clear headroom in budget to make new appointments and exploit strategic opportunities.

Strong plans to grow - in student numbers and research performance.

## Growth in teaching and research

Since 2005-06:

- Total student FTEs in the Faculty have grown by 13%
- OS student FTEs have grown by 41%
- PGT student FTEs have grown by 86%
- PGR student FTEs have grown by 6%

- Gross research expenditure in the Faculty has grown by 28%
- RMC expenditure in the Faculty has grown by 77% (courtesy of PEC)

In 07/08, the Faculty's position relative to the Russell Group plus York is:

- Third with respect to research grant and contract income.
- Third with respect to research awards per £ expenditure.
- Fourth with respect to research awards per academic staff FTE.

Flexible ways of working: Faculty Finance clusters, and Faculty Computing.

Teaching: Rationalisation of small courses, and sharing

Estates: Setting out strategy to deal with 1, 3 and 15 year timeframes. Solutions likely to involve combination of refurbishments and new build / lease.

Plans to grow PhD student numbers across the Faculty.

### Some CS highlights last year:

- Winner in national SET awards
- Top-ranked CS department in NSS
- Admissions
- Two new Lecturers
- Two new Chairs of Machine learning
- Faculty Prize Lectureships

### SET awards:

Undergraduate Chris Green won the coveted BCS Award for the Best IT student at the 2009 SET awards.

*eMotion Shuffle* allows users to organise their music so that songs of similar mood are clustered together.



### What students think of us: 2009 NSS

The National Student Survey (NSS) measures what final year students think of each and every course - see [www.nss.gov.uk](http://www.nss.gov.uk)

In 2009 we scored a maximum 100% for student satisfaction - better than any other computer science department in the UK.

Sheffield	- 100%
Reading	- 99%
Durham	- 99%
Edinburgh	- 99%
...	...
Southampton	- 91% -17%
Nottingham	- 81% -48%
Manchester	- 80% -62%

### National press coverage:

The Times Higher Education Supplement wrote:

*"Computer scientists at the University of Sheffield ... were all unanimously satisfied with their course"*

*"John Derrick, head of department, attributed the popularity of the course to its combination of theory and practical application, which gives graduates a good chance of getting a job."*

### Admissions

Very good year.

Strong UG cohort - not going into clearing. Increase in OS UG.

Maintained PGT student numbers, again strong OS group.

OK year for PhD, strong efforts to increase numbers substantially.

### New Lecturers

Eleni Vasileki - interests in Machine Learning and Computational Biology.

Trevor Cohn - interests in Machine Learning and NLP.

### New Chairs in Machine Learning

Neil Lawrence and Magnus Rattray, both currently at Manchester will be joining the department.

Funded by the Faculty of Medicine and Health and, initially, the Faculty of Engineering's strategic fund.

It marks the start of a collaboration between ourselves and the SITraN - The Sheffield Institute for Translational Neuroscience.

Neil and Magnus bring extensive experience in both machine learning and bioinformatics.

### Faculty Prize Lectureships

5 posts across the Faculty - world class academics, irrespective of subject area...

600 applications, 130 in computer science...

24 presentations...

11 interviews...

### Placements and Projects

### Flexible

#### Students

- Can decide to take a year in industry in their final year in the area they like

#### Employers

- Any areas as long as appropriate work experience is guaranteed
- No limited lists

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### Framework

#### 12 month placement

- Preferred with single employer
- 2 x 6-month placements possible but difficult to organise for the student

#### University takes supporting role

- Regular contacts + placement visits
- Journal (kept on MOLES)

#### Final report + presentation

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### Selection

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Students approach industry and look for placements

- No constraints on sectors - IT needs are everywhere
- Minimum performance in semester 1 - 55%

Once a placement is secured, assessment based on

- Match with degree
- Reliability of project/employer (University)

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### Internal advertising

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<http://www.donahof.bank/Intranet/Handbook/Internship/Placementsh.html>

<http://www.shef.ac.uk/placement>

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### Requirements

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**For Students**

- 55 % in Semester 1
- Student registration at relevant site

**For Employers**

- Students will need to be paid a salary
- Issuing a contract of employment
- Health and safety questionnaire

**For all**

- A placement agreement, this is a three way agreement between your organisation, the student and the University.

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### Support Services

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**Careers**

- Announcements of Job Events
- Individual job postings - University careers
- Announcements of summer project opportunities

**Degree Projects**

- Welcome industrial proposals and supervision

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### Presentations

**Genoys**

**Phil Green - industrial engagement with Speech and Hearing group.**

### Curriculum review

Now first year taught this year (2009-10).

Now second year starts Sept 2010.

Work on new 3 / 4 / PGT this summer, for implementation Sept 2011.

#### 4. Genesys Presentation



Presented by Chris Murray, Managing Director, Epi Genesys Limited



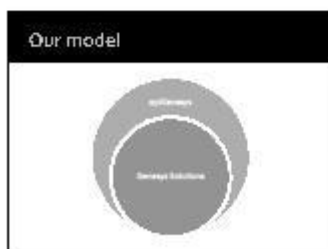
Genesys Solutions was founded in 1993 within the Department of Computer Science at The University of Sheffield. The 'virtual company' was staffed during the academic semesters by fourth year students on masters degree programmes in Computer Science, Software Engineering and similar. Genesys students worked on a variety of projects with clients including other University departments and local organisations, and their work contributed credits to their degree.



Genesys suffered one major problem – at the end of the spring semester the entire staff of the company graduated and departed! This left Genesys clients without support during the summer vacation, not to mention the Christmas and Easter vacations and exam periods. Furthermore, a great deal of the knowledge and experience built up during the year was lost.



In late 2007 the Department of Computer Science created a spin out company, Epi Genesys Limited, which remains wholly owned by the University. The company offers agile software development services, and clients include other University departments and research groups, local organisations including businesses and hospitals, and other regional universities. epiGenesys specialises in the delivery of information management systems for the medical and health research sectors, and since its formation has collaborated closely with the Clinical Trials Research Unit within the School of Health and Related Research.



epiGenesys employs a team of four permanent staff - they are all graduates of the Department of Computer Science who hold masters degrees and have themselves studied the Genesys module. The staff undertake commercial projects which allow the company to be entirely self-funded (and to operate at a small profit!). Genesys Solutions has become a division within epiGenesys, offering similar agile software development services. The presence of the epiGenesys staff enables the provision of full support to Genesys clients throughout the year at commercial standards.

#### Student-run



The Genesys Solutions division remains student-run, and continues to be primarily staffed by fourth year students on masters degree programmes in Computer Science, Software Engineering and similar. As before the students are compensated for their work with credits for their degree – the fourth year Genesys module is worth 40 credits, or one third of the final year. epiGenesys and Genesys Solutions share premises in the University's Enterprise Zone, facilitating collaboration and enabling the epiGenesys staff to provide support and assistance to the students.

#### Not just computer science



Since 2009 the Department of Computer Science has offered a new third year module, "Experiencing Genesys", which is available to students in all University departments. This spring semester module allows students from other disciplines to benefit from the presence of the epiGenesys environment, where they have the opportunity to develop their business skills. The module also enables students from the Department's own Enterprise Computing programme to participate in Genesys, even if they will be graduating on completion of their bachelors degree. As a result of this module, Genesys has been provided within an enhanced skills base, with previous participants joining from Psychology, and Automatic Control and Systems Engineering.

#### Technical skills



Genesys provides its students with an opportunity to develop a range of skills, and in particular allows them to exercise their software development skills in commercial scenarios. The Genesys students use the same modern technologies, techniques and tools as found in epiGenesys. These include the Ruby programming language, agile practices and Behaviour Driven Development, and assorted development and testing tools. Our goal is to enable the students to develop current technical skills which will be of value when seeking employment.

#### Business skills



Genesys also encourages the development of business skills. Students opting to participate in a software development team will work on projects with real clients, where communication and the successful delivery of business value are of utmost importance. Each year a number of students form a sales and marketing team, and they are expected to develop the Genesys brand and effectively market this to enable them to acquire new projects for the software development teams. A small number of students form a technical services team which manages and maintains the independent epiGenesys computing infrastructure, and provides systems support to the rest of the organisation.



#### Project skills



Genesys students inevitably enhance their project skills whether they are delivering software to clients, marketing campaigns to prospects or technical services to the organisation. All students are specifically required to develop meeting skills, including setting agendas and writing minutes, and some students have an opportunity to do this at the regular Genesys board meetings where all students, staff and academic supervisors meet to discuss the organisation. Students learn first-hand about the necessity of planning and project management, and the need for good client engagement. They also gain experience in the difficult art of software development estimation.

#### Interpersonal skills



Genesys is the ideal environment for students to develop their interpersonal skills. All students participate in one or more teams, and team members are required to communicate and collaborate to ensure the successful delivery of their projects. Furthermore, the Genesys teams can offer support to each other, and students that choose to share ideas and negotiate assistance can benefit greatly. The Genesys students also learn that effective communication with their colleagues in epiGenesys can make their experience much easier!

#### The end result



Each year Genesys says goodbye to a cohort of graduating students, many of whom have gained over six months of realistic work experience as part of their studies. These graduates leave with a valuable mix of technical, business, project and interpersonal skills to supplement their academic achievements. Ultimately they are well-prepared to become immediately effective in their future career.


#### Find out more

- [www.epigenesys.co.uk](http://www.epigenesys.co.uk)
- [info@epigenesys.co.uk](mailto:info@epigenesys.co.uk)
- twitter: @epigenesys

Further information about epiGenesys and Genesys Solutions is available online at the epiGenesys website, by request via e-mail, or you can follow epiGenesys on twitter.

## 5. Curriculum Review by Director of Teaching (SDN)


Industrial Liaison Board 2010 12 May 2010



### The New Curriculum

- Revised 1<sup>st</sup> year was introduced in 2009/10
- Revised 2<sup>nd</sup> will be introduced in 2010/11
- Revised 3<sup>rd</sup> and 4<sup>th</sup> years will both be introduced together in 2011/12


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### The Principles

- We keep our most distinctive feature – our emphasis on allowing students to experience building software as it is built in the real world
- We reduce the students' opportunities to fail


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### The Principles

- We keep
  - The Crossover project in the 1<sup>st</sup> year
  - Software Hut in the 2<sup>nd</sup> year
  - Genesys
- We move to 20 credit modules instead of 10


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### The First Year

- Software Engineering Crossover Project
- Foundations of Computer Science
- Java Programming
- Web and Internet Technology
- Machines and Intelligence
- Devices and Networks


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### The Second Year

- Advanced Programming Topics
- Human Centred Systems Design
- Software Hut
- Automata, Logic and Computation
- Data Driven Computing
- Bio-Inspired Computing and Robotics

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### The Third & Fourth Years

- Mainly specialist topics
- Probably lots of 10 credit modules
- We will probably include Professional Issues
- We will keep Genesys
- We still welcome project suggestions

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## 6. Best Poster

**Noted:** The best poster was awarded to Paul Ridgeway for his project: An RDFa Web Spider