The University Of Sheffield.

Research & Innovation Services.

Issue 9 | Spring 2015

Doctoral Times.

The Newsletter for Doctoral Researchers

Introduction

This issue of the Doctoral Times has a focus on collaborative working. Current and future doctoral researchers cannot work in isolation. There is a need for collaborative planning and development that sees academia, industry, regulators and government, working together to establish and promote the benefits of working across subjects and disciplines.

In this edition we have brought together some examples from across The University that showcase collaboration.

We hope you enjoy reading our collaborative issue of the Doctoral Times as much as we have enjoyed working together to produce it.

Best wishes

Katie and Anita

In this Issue:

Editorial Team

Commissioning Editor:
Dr Gavin Boyce, Doctoral Development Team Leader

Editors
Anita Jane Kenny & Katie Cahill

Thank you to all contributors to this edition

Issue 8 Crossword Solution

D	E	V	E	L	O	P	M	E	N	T	■	N	T	H	■
E	■	A	■	E	■	L	■	N	■	R	■	■	U	■	S
G	■	C	L	A	M	A	N	T	■	A	C	T	I	V	E
R	I	A	■	V	■	C	■	H	■	V	■	■	T	■	C
E	■	T	■	E	X	E	C	U	T	E	D	■	I	■	U
E	X	I	T	■	■	M	■	S	■	L	A	B	O	U	R
■	■	O	■	T	■	E	■	E	■	■	B	■	N	■	E
■	E	N	T	R	A	N	T	■	H	■	B	■	■	■	D
E	■	■	■	Y	■	T	■	J	O	B	L	E	S	S	■
N	■	O	■	O	■	■	C	■	M	■	E	■	H	■	■
G	E	N	I	U	S	■	O	■	U	■	■	T	A	X	I
A	■	S	■	T	E	R	M	I	N	U	S	■	N	■	N
G	■	T	■	■	N	■	E	■	C	■	A	■	G	U	T
E	N	A	B	L	E	■	S	Q	U	E	L	C	H	■	E
D	■	G	■	■	C	■	U	■	L	■	S	■	A	■	R
■	Y	E	N	■	A	P	P	L	I	C	A	T	I	O	N

A Collaborative Internship with Sheffield City Council

A report by Colin Whittle doctoral researcher in Environmental Psychology

An internship is something I would never have thought to do. As a 2nd year PhD student, my focus had very much narrowed to my little niche in my research field. Luckily for me, however, I received an email from the University of Sheffield's Career service about a scheme called "Sheffield Internships for Postgraduates" or "ShIP". They were advertising an internship with Sheffield City Council. The subject of the email was "Prestigious paid internships for PhD students". Admitedlly it may have been the "paid" aspect that made me open the email, but it was the person specification that made me apply. The person specification is in the "Can you...?" box. I read through them and thought "yes, yes, yes...I can do all these things!", but most importantly, not only did I think I could do them, but I wanted to do them.

As a team of five PhD students, we spent three months working with Sheffield City Council in the Life Long Learning Skills and Communities Department. We were given our own project exploring unemployment issues in Sheffield, particularly regarding the long term unemployed and individuals with learning disabilities. We were asked to identify potential opportunities for improving the employment services and increasing employment rates for these vulnerable groups.

Can you.....?

- *Have big and innovative ideas*
- *Solve problems*
- *Analyse data and finances*
- *Liaise with a range of professionals working in this area*
- *Form an effective team*
- *Work confidently and professionally*
- *Demonstrate a positive, 'can do' attitude*

The project was very broad in its scope given that unemployment is a complex, national challenge. The Lifelong Learning department, however, did an excellent job orientating us in not only the current issues in unemployment and learning disabilities, but also in how the council operates and the projects that they are undertaking. We then engaged with numerous employers and employment specialists throughout the city in order to acquire as many perspectives as possible. For our report (pictured below) we then distilled these perspectives into new opportunities for the council and examples of best practice.

The internship provided the perfect environment to develop flexible thinking and gain invaluable experience of working on projects outside of academia (i.e. in the "real world"). Working on such a complex and novel project was a challenge, however, that is the very reason I wanted to do it and I would have been disappointed if it had been anything else. I wanted to push myself and use the skills I had been almost unknowingly acquiring on my PhD in completely new and exciting ways. Any PhD student, who wishes to explore new ways of using their skills and have a positive impact whilst doing so, should do an internship.

Collaboration with Museums Sheffield

Pippa Gardner is a doctoral researcher with the Department of Geography

Five months into a collaborative doctoral award and a number of benefits, as well as challenges, to this mode of research are emerging. Unlike many of my peers I have adopted a project that I didn't originally design myself. These initial months have been an exploration of the boundaries – how I can alter and adapt the research aims to fit my personal interests while maintaining a project that remains of use and relevance to the University, funding body and partner organisation.

My project seeks to explore how museums might create and utilise spaces for curiosity and innovation and I am undertaking it in partnership with Museums Sheffield, the trust behind Weston Park Museum, Millennium Gallery and Graves Gallery in the city. Having taken a break from academia after my MA to work in a variety of arts and heritage organisations, it was the idea of completing a PhD course embedded within the practical environment of an external partner that particularly appealed to me. This mode of research offers constant reminders of the constraints on financial and other resources that such organisations face and thus I hope will create outputs that, whilst still theoretically ambitious, can be practically actioned.

Within the University and the wider White Rose Network I have been able to connect with other researchers working on collaborative projects – who in turn have helped me to understand the specific challenges of our courses. Setting boundaries and expectations for all involved is an important step that I feel will be ongoing until the project methodology is more firmly set later in the year. Balancing the different partners aims is also a key consideration, but one that will ensure I complete the course with a thorough understanding of strategic vision.

Working with supervisors across The Department of Geography, The Department of Architecture and Museums Sheffield provides me with a rich breadth, as well as depth, of knowledge and experience to draw upon. Scheduling meetings becomes an ongoing negotiation with four diaries involved, yet the fruitful discussions provide a rich research environment that I wouldn't want to operate without. The logistical complexities of interdisciplinary and collaborative research can be overcome with thorough planning and forethought, a minor issue in comparison to the value of such methods of working.

Photo Adrian Richardson. Courtesy of Museums Sheffield.

Two is Better Than One: Cross - National PhD Programme for Sheffield And Tohoku Students

Professor Glenn D. Hook, School of East Asian Studies.

The School of East Asian Studies at the University of Sheffield and the School of Law at Tohoku University have set up an innovative cross-national doctoral programme to promote the joint training of postgraduate research students between the UK and Japan. The programme is designed to enable students registered for a PhD at one institution to be considered for registration at the other institution. On the successful completion of all of the academic requirements at both institutions, students can then be considered for the award of the doctorate from both Sheffield and Tohoku – a double degree.

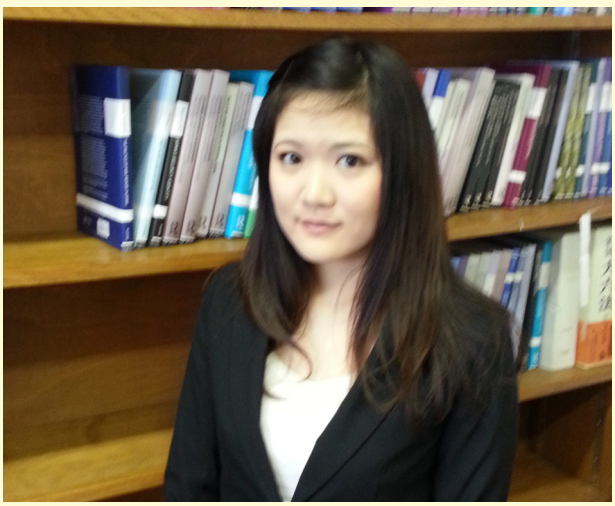
The focus in the first phase of cooperation was on offering Sheffield students the opportunity to register as a student at Tohoku and spend one year affiliated with the Law School's Global Centre of Excellence on Gender Equality and Multicultural Conviviality in the Age of Globalization. The first five Sheffield students have completed their PhDs: Paola Cavaliere, from Italy, on women's identity formation in contemporary Japan; Ra Mason, from the UK, on Japan and North Korea; Sven Matthiessen, from Germany, on Japanese pan-Asianism; Paul O'Shea, from Ireland, on Japan's territorial disputes; and Kamila Szczepanska, from Poland, on Japan's war memory.

A number of these are now teaching at universities in Denmark, Germany and the UK. One student studying Japan's economic role in Southeast Asia is presently enrolled on the programme.

The second stage of cooperation has been the acceptance of Tohoku students at Sheffield. Minami Suzuki, who has just completed one year of study at Sheffield, is the first student to join us . Following her period of study at Sheffield, during which she was confirmed as a PhD candidate, she will now return to Japan to conduct fieldwork for her dissertation, Just War Theory and Japan's Response to 'New Wars'. She will continue to be supervised by her supervisors at Sheffield as well as those at Tohoku until she is examined.

Minami had this to say about her experience on the cross-national programme:

Being at the University of Sheffield as a cross-national student is a very valuable experience for developing my research: I can receive professional guidance that is needed in the area of social science not law and politics only, exchange knowledge and evaluation about Japan, and also get knowledge about the outlook and agenda for conducting international research. Doing a PhD is one of the most difficult educational tasks, but I have received a lot of support from Tohoku University and the University of Sheffield as well as a valuable experience here in Sheffield, enabling me to continue my research step by step."



Rediscovering The Social Purpose of Planning:

A Report by Jason Slade, Lee Crookes, Andy Inch and Marion Oveson researchers in the Department of Town and Regional Planning

The Department of Town and Regional Planning's (TRP) community engagement initiative, the Westfield Action Research Project, was launched in October 2013 and involves staff and students working with residents in Westfield, a disadvantaged community in South-East Sheffield, to help them plan a sustainable future for their local area.

Westfield has received £1m in Big Lottery funding to invest in neighbourhood improvements over the next decade and Lee Crookes and Andy Inch have been involved in establishing what is intended to become an ongoing, long-term partnership between TRP and the community that endeavours to provide mutual benefits for local residents and both staff and students in the department. The initiative represents a means of exploring the potential contribution of engaged action learning and research as a core feature of planning education at Sheffield, and as a contribution to the development of the engaged university.

In its first year a group of 20 student volunteers worked alongside residents to develop a range of consultation activities and events. Significant initial achievements included the visit of Professor Ken Reardon (University of Memphis) and Dr Laura Saija (University of Catania, Sicily), the development of joint student-community training events, and the joint development of key action research projects to contribute to planning efforts in Westfield. In the spring semester this activity was supplemented by the introduction of the module Community Planning Project.

This offered student volunteers the opportunity to engage in credit-bearing reflective learning through a combination of university based seminars and practical engagement, which involved developing a schools outreach programme to assist the wider project. This outreach programme encouraged young people to contribute ideas for improving the local area whilst endeavouring to raise aspirations to the possibility of higher education.

In the summer of 2014, with funding from the University of Sheffield's Engaged Curriculum Fund, we were able to engage Jason Slade, a PhD student in TRP to undertake a research project, Better learning through engagement? Evaluating year one of Community Planning Project. The question driving the project was how we even begin to evaluate engaged learning, given its differences from conventional classroom based learning and a perceived thinness in current evaluation models in HE (more information about the project and its findings is available on the Engaged Curriculum blog https://engagedcurriculum.wordpress.com). In addition to its central research questions the report was also an opportunity for reflection on the previous year's work and fed into planning for the current academic year.

Central to this has been the appointment of community development worker, Marion Oveson, via Locality's Community Organisers Scheme. Joining the Department to help co-ordinate student engagement in Westfield, Marion has been helping us ensure that our activities remain useful and successful, providing benefits for both students and residents.

This year, students have continued to be involved in a range of activities such as:

- producing a State of Westfield report to inform community priorities
- co-producing research projects on community buildings, open spaces and local services
- consultation events and planning workshops
- community 'Fun Days'
- coffee mornings
- school holiday clubs
- litter picks
- Christmas food and toy drive

The Westfield Action Research Project

Photo: Students and Westfield residents at a Planning for Real training session in the Department of Town and Regional Planning

Students were also involved in a successful community-led campaign to keep Westfield surgery open when it was threatened with closure. This year has also seen our cohort of volunteers expand to include post-graduate taught students, who have worked alongside undergraduates to explore possible approaches to tackling the priority issues in Westfield.

In addition, Lee and Andy have also secured funds from the Higher Education Innovation Fund, working with the Town and Country Planning Association and Westfield Big Local, to research the scope for university supported community-led planning efforts to make a difference to life on the Estate.

This funding was partly used to hold a series of three workshops with residents which helped to identify key issues, collate them into a profile document and establish a vision for change.

Collaborative work is continuing as residents move towards finalising their plan, delivering and reviewing it. We can be optimistic, then, that there can continue to be productive learning on all sides as the project moves forward. In addition to the continuation of our current work we hope to see residents and students contributing to the inaugural Westfield International Planning Conference, which will take place on the Estate in June.

Interdisciplinary Collaboration: Solar Energy for Future Societies

By Dr Helen Holmes and Dr Alastair Buckley researchers in Geography and Physics and Astronomy.

In 2011 the EPSRC funded an ambitious four year project uniting a number of cross faculty disciplines to explore the future of energy with a local community. Led by Alastair Buckley from Physics and Astronomy, the collaboration titled 'Solar Energy for Future Societies', involved Physics (Alastair Buckley, Jose Maywin), Geography (both from Sheffield – Matt Watson, Helen Holmes and Durham –Anna Krzywoszynska, Nicky Gregson,) and Architecture (Prue Chiles).

Over the four years the project has been very successful, working closely with the local community of Stocksbridge to discuss potential future community energy scenarios. Along with academic learning in the fields of energy planning and policy and science and technology studies, a local, "Stocksbridge Energy Group" has been established made up of people passionate about investigating renewable energy sources for the town – including a hydroelectric scheme, the use of geothermal energy from disused mines around the valley, as well as solar photovoltaics. Furthermore, measures are already underway, following the project, to improve the energy efficiency of various community buildings.

However, whilst the project has been very successful in and of itself, one of its primary achievements has been its effective interdisciplinary teamwork. Interdisciplinarity, multidisciplinarity, cross-disciplinarity and transdisciplinarity are all terms used somewhat ambiguously to describe disciplinary collaboration and co-production. Interdisciplinarity is often defined as disciplines collaborating together and synthesizing their ways of working (for definitions on the various forms of disciplinary collaboration see Barry et al., 2008).

Yet trying to encourage and define interdisciplinary working is particularly difficult. Literature on the subject offers advice on the numerous elements required for successful interdisciplinary working from a common language, to shared goals, physical proximity and good communication.

Yet as our project has illuminated, there is no 'silver bullet' to creating successful interdisciplinary collaborations. Furthermore, being able to identify if a particular collaboration is interdisciplinary is in itself a challenge. Our project has been unique because it has employed a research associate tasked solely with the aim of encouraging and evaluating interdisciplinarity within the project and its members.

So far this role has proved fruitful and one of the key learnings from the project is that it has its own particular form of collaboration. Using the concept of 'mess' (Donaldson et al., 2010), the project has accepted that not all that goes on in such research projects can be ironed out and simplified. Rather 'mess' exists and should be accepted for just that. In our instance, this mess was identified through a number of key themes which were identified repeatedly throughout the life course of the project. Examples include:

- serendipity – the things you cannot plan for
- excess – the elements of a project which occur outside of the project's traditional boundaries, for instance going for a drink with colleagues and discussing the project
- momentum and pace – how the speed and rhythm of a project alters throughout and how this affects collaboration

This 'mess' is the very stuff of our collaboration and interdisciplinary working. It is what defines our project and binds it together. Furthermore, it is through this mess that we recognise the added value of our involvement in such collaborative working: the 'spill over' effects from other disciplines which influence the way we research, teach and learn within our own.

Collaboration with Industry

By doctoral researcher Oliver Hatt in the Machining Science Industrial Doctoral Centre (IDC)

I am investigating the mechanisms of subsurface damage and tool wear behaviour in titanium machining, with the aim of improving tool design.

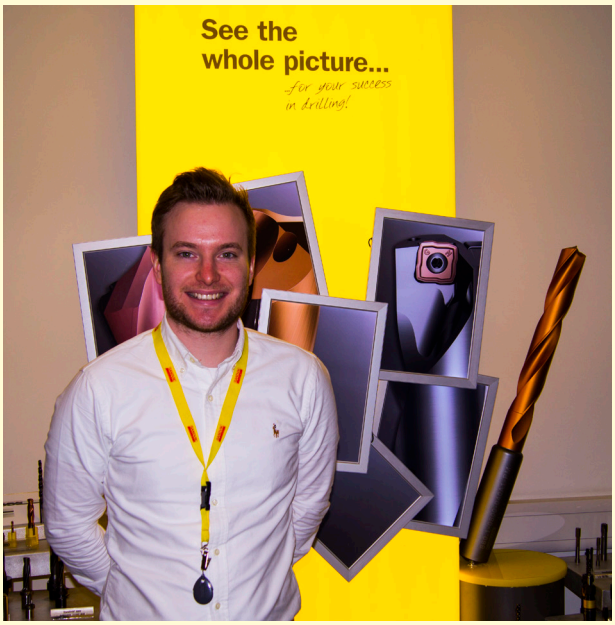
Thermomechanical deformation caused by machining has a major impact on surface integrity and mechanical performance of machined titanium alloys. However, in titanium alloys the effects of chemistry and microstructure condition on the subsurface damage and tool wear behaviour are still not understood. My work will allow my industrial sponsor, Sandvik Coromant, to design tools to reduce or eliminate subsurface damage and improve tool wear rates. My project will investigate how dissolution and diffusion between tool and workpiece during machining operations can affect surface integrity and subsurface microstructure in titanium alloys. I will develop constitutive material models to predict surface behaviour depending on cutting insert geometry, cutting insert grades and cutting data. I will also develop mechanistic models to understand the influence of cutting data and insert geometry on surface damage and tool life. The project itself is multi-disciplinary. I am looking at the physical chemistry of tool wear and workpiece surface integrity, rather than taking a purely mechanistic point of view.

The collaboration with my industrial sponsor offers a multitude of benefits which are invaluable during the early stages of my career. I am able to network with professionals, learn from the experts, and most importantly, see first-hand how my research can impact the real world. Being situated at an outstanding engineering department at the University of Sheffield and regularly liaising with Sandvik Coromant in the UK and Sweden provides the perfect environment in which to innovate and grow my research interests.

I believe that over the course of the four years, it gives Sandvik Coromant the opportunity to develop me into an adept and skilled engineer who understands the challenges facing industry today. Furthermore, it gives me the chance to understand and learn the culture implemented at a world-leading engineering firm.

The IDC also provides a platform in which I am able to work closely with the University of Sheffield's Advanced Manufacturing Research Centre (AMRC). At the AMRC I have access to the latest technology in machine tools and microscopy. In addition to the cutting-edge facilities, I am also exposed to senior representatives at partner companies such as Boeing and Rolls-Royce. Having such responsibility also conjures up a number of challenges. First and foremost, time management is crucial. One must satisfy criteria set by both the university and the industrial sponsor. This includes completing experimental work to predetermined deadlines; presenting work to large audiences (and being comfortable with differentiation for both scientific and non-scientific audiences); and travel between the sponsor and university. Being mobile underpins successful time management due to the possibility of working at any of the available workspaces (University, AMRC and Industrial Sponsor).

Other challenges include budgeting and resource management. EngD's have to be intelligent in project planning in order to ensure successful budgeting over the four years. Composed resource management is also important for both personnel (managing final-year projects for Masters Students) as well as equipment, for example booking busy and popular machines.



Royal Academy of Engineers Prize Winner

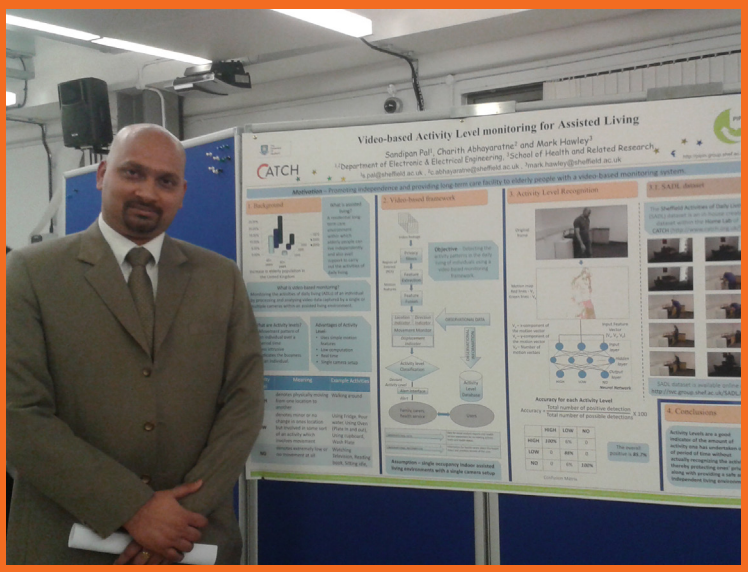
Sandipan with Dame Ann

A report by Sandipan Pal doctoral researcher in the faculty of Engineering

At the recent Regional event held at the University of Liverpool one of the University's Engineering students Sandipan Pal was awarded Second Prize for his poster based on his project "Video-based Lifestyle Monitoring for Assisted Living".

Sandipan is pictured left receiving his award from Dame Ann Dowling DBE FRS FREng President of the Royal Academy of Engineering.

About the project:



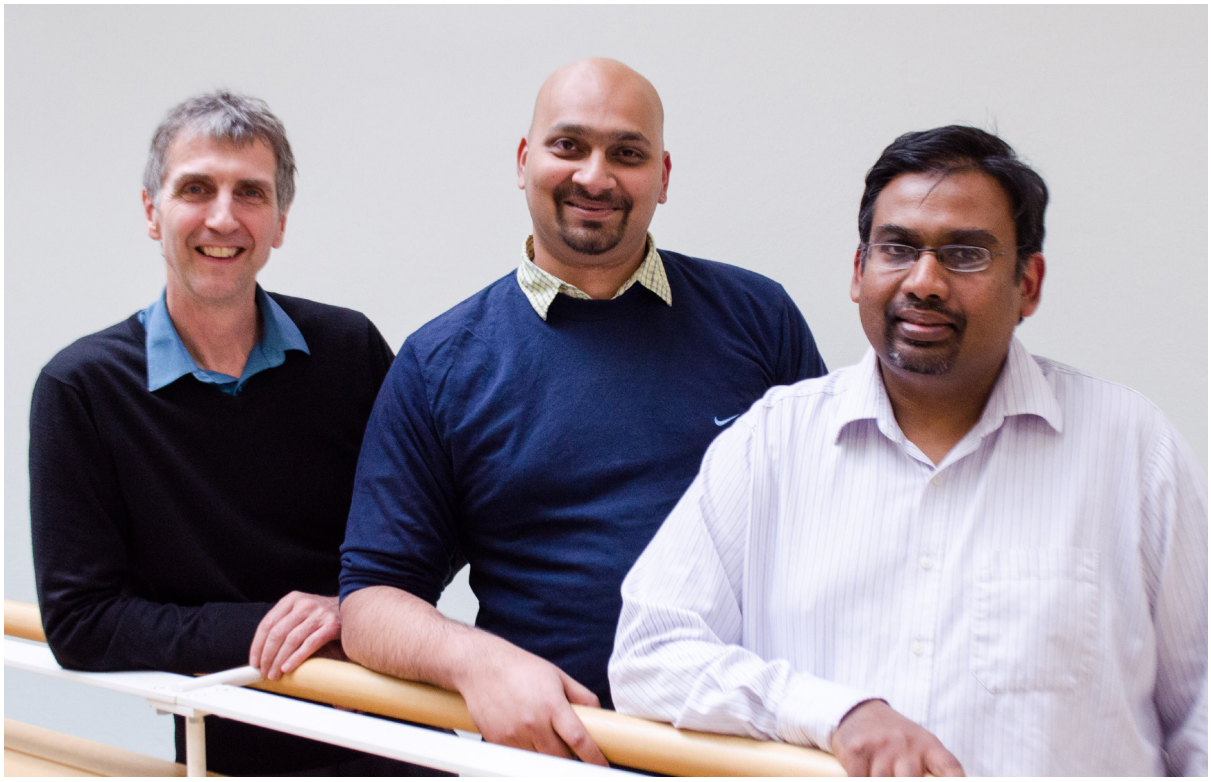
Sandipan's winning poster

A rapidly ageing world envisages the use of technology for promoting independent living for the elderly. It is widely accepted that the amount of daily activities undertaken is representative of ones' health. Current passive home monitoring technologies are mostly passive sensor-based. Often an obtrusive, complicated sensor network monitors a single or multiple parameters of daily living of an individual. On the other hand, with the reduction of camera prices and the evolution of computer vision techniques, there is a growing interest of using video-based systems for different application domains. This project explores the idea of using a camera instead of passive sensors to monitor the day to day activity levels of an individual within a home environment. Using computer vision and machine learning techniques, a personalized profile of an individual would be created which would be indicative of the daily activities undertaken and representative of the health status of an individual within the home environment thereby promoting healthy and independent living.

This collaborative project brings together the expertise of computer vision research within the Department of Electronic and Electrical Engineering (EEE) to addresses the technical challenges involved in the creation and application of video-based lifestyle monitoring system by health service researchers within the School of Health and Related Research (ScHARR).

This PhD project is part of the PIPIN (Promoting Independence through Personalized Interactive Technologies) network, funded by The University of Sheffield cross-cutting research network scheme (web: http://www.pipin.group.shef.ac.uk). The PIPIN network includes academics from ScHARR, EEE, Computer Science, Sociology and Human Communications.

The Team



Prof. Mark Hawley is a professor of Health Services research within the School of Health and Related Research. He is also the Director of the Centre of Assistive Technology and Connected Healthcare within the University. His main research interests include assistive technology, telecare & telehealth and digital healthcare.

Sandipan Pal is pursuing his PhD in the Department of Electronic and Electrical Engineering. His main research interests include computer vision, assisted living, software engineering, object-oriented programming and machine learning.

Dr. Charith Abhayaratne is a lecturer with the Department of Electronic and Electrical Engineering. His research expertise includes video coding, video processing, computer vision and their applications in creative industries, healthcare, assistive living, security and surveillance.

Collaborative Research - A Supervisor's Viewpoint

By Dr. Candice Majewski

After accepting an academic position at The University of Sheffield, by far my biggest concern was to ensure that I didn't leave any loose ends at my previous Institution (Loughborough University). Research projects were conveniently coming to an end just as I was due to start in Sheffield, and other activities were relatively easy to finish or hand over.

This left just one issue – Andrew Johnson, a PhD student I was co-supervising with an academic in Loughborough Design School. Andrew's PhD was sponsored by Loughborough, and there was no question of me trying to bring him with me to Sheffield. However, my upcoming departure did leave the issue of whether or not I should continue to supervise, or whether we should find him a new supervisor.

When Andrew's supervisor, Guy Bingham, first asked me to co-supervise with him, it was obvious to all three of us that between us we covered exactly the right combination of expertise to support him through his PhD. This faith in our collective team led to the decision that I would continue as an external supervisor, and was crucial to ensuring that we continued to provide effective support for Andrew.

Whilst by no means insurmountable, there are of course certain difficulties encountered when one of the team is based elsewhere. As supervisor it can be easy to feel a little out of the loop at times. Not being present at the University meant not seeing Andrew in the corridor, or popping in to chat for a few minutes. In other words, the relationship lost some of those informal interactions which can really make a difference within a PhD. Geography also played a part; despite Loughborough and Sheffield being relatively close, this became the difference between taking an hour for a meeting or a full afternoon.

At busy times this was especially difficult to manage, but the reality is that email/phone/Skype simply cannot take the place of face to face meetings.

Having said that, having a high quality PhD student in the first place made it easy to overcome any of these issues. From the very start Andrew was the type of PhD student we are all looking for – intelligent, hardworking, enthusiastic and good with people. Throughout his PhD he worked independently, never needing to be micro-managed, and steering his own work. At the same time, he was not afraid to ask for help when he needed it, which was essential in giving me the confidence that he would not 'suffer in silence' just because I was not still based in Loughborough.

I'm pleased to say that Andrew successfully passed his PhD with very minor corrections, and has received several awards for his work, including from the Rapid Prototyping Journal (RPJ), UK Defence Safety & Security Committee, IOM3, and the 2012 Solid Freeform Fabrication conference. Overall I would say the benefits far outweighed any negatives of external supervision!

The University of Sheffield provides online support for all supervisors at www.sheffield.ac.uk/ris/pgr-support supervisorsportal/home

Collaborative Research - A Student's Viewpoint

SEERC and TUoS have created the opportunity for me to participate in various research projects with countries from SEE and the European Union and to gain significant experience for my PhD and valuable employability skills. I have also received substantial support in terms of participating in relevant conferences and events.

Furthermore, by taking advantage of the joint supervision scheme and of the constant and close cooperation between CITY College, SEERC and the Faculty of Social Sciences at TUoS, I also became involved in research projects with TUoS which have global impact involving countries such as USA, UK and India.

My expectations from SEERC at the beginning of my PhD were extremely high and they have definitely been exceeded, making me wonder about the next opportunities that can be pursued. This is why, my advice to prospective students of TUoS that intend to choose SEERC are: Aim high, work hard, risk, care, dream big and co-create your positive outcomes!

Mr Adrian Solomon - PhD Topic: "A Knowledge Based Decision Support System for Resilient and Green Freight Transportation" At the South East European Research Centre (SEERC), Thessaloniki, Greece.

The University of Sheffield welcomes collaborative arrangements with other institutions that support the mobility and development of doctoral researchers. An interactive map can be found on our web pages: www.sheffield.ac.uk/ris/pgr-support/new/collaborative

STREAM Industrial Doctoral Centre

By Dr. Kate Ellis, Doctoral Prize Fellow, The University of Sheffield.

I joined the STREAM Industrial Doctorate Programme in 2009, in its inaugural year. I was working with Severn Trent Water Ltd. (STW) and the University of Sheffield, with secondary academic support from Imperial College London. My project sought to improve root cause analysis for bacteriological water quality failures.

After the induction semester at Cranfield University, I moved to Derby so that I could work with STW's Distribution Team. As part of my company induction I was able to see how pipelines were installed, attend staff training events, and to share my thoughts with a wide variety of staff members from managers to water quality experts to site operators. These experiences really helped me to improve my understanding of the water industry.

The STREAM Programme requires that you attend Transferable Skills and Engineering Leadership training (equivalent to the training provided for PhD students based within a university). These courses were taken at each of the five universities in the programme. The last two courses were the most useful: 1) learning about developing a public profile (I made a web-site after this course) and 2) preparing for interviews and writing proposals. In the second course, my proposal won a prize and I went on to submit a version of it for funding at the University of Sheffield and was delighted to be successful.

One great aspect of the STREAM Programme is the annual Challenge Week where all students from all cohorts get together to get to know one another and take part in fun water-themed challenges. It's a wonderful event and very important for making contacts and friends.

My research project gave STW a better understanding of the complexity of bacteriological failures, showed the value of using alternative data analysis techniques in identifying root causes, and gave them a detailed financial assessment of their failure investigations. The cost model that I made during my research has improved their spending projections.

Collaborating closely with STW was hugely beneficial to me as a researcher, as I had access to knowledgeable staff and people that my work would directly benefit. I was really pleased when my work was highlighted within the company and I received thoughts and feedback from other members of staff.

Being part of the STREAM Programme has made my transition to Research Associate at the University of Sheffield easier, as I was already used to working independently. I also benefited from having a proven track record with a water company to enable me to recruit new collaborators for my current research post (EPSRC Doctoral Prize Fellowship). All doctorates are challenging, and the STREAM EngD was no exception, but it has given me a huge sense of achievement, confidence in my own abilities, professional contacts and many friends.

stream

The Industrial Doctorate Centre for the Water Sector

Collaborative Study Space

Opening Hours

We are open 8am to 12 midnight 7 Days a Week*

*On completion of Out-of-Hours and Fire training

Are you looking for quiet study space?

Come to the Graduate Research Centre, Dainton Building

We have a vibrant community with 200+ students from over 35 Departments.

Centrally located close to the libraries and the Student Union.

We also offer:

Kitchen

Social Space to collaborate

Wireless Internet Access

To join the GRC please go to the following link: www.sheffield.ac.uk/ris/pgr/grc

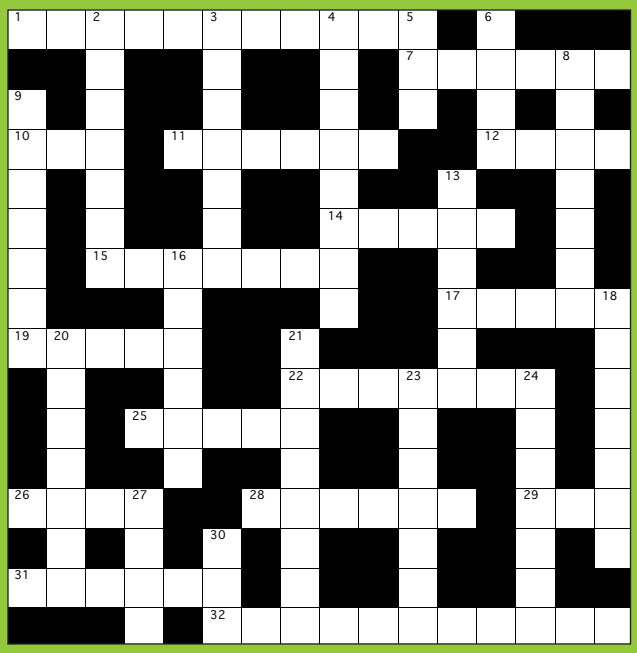
Computing Facilities:

Floor D of the GRC provides flexible study and social space for the doctoral community. This includes a computer facility offering 28 bookable networked computers.

Floor C offers 27 long term workspaces with storage.

Cryptic Crossword

The University Of Sheffield.



Compiled by Vanilla

Clues

Across

1. Work together to get ball back in original position inside crate. (11)
7. The data group, initially found in the University of Edinburgh, moved to Kuala Lumpur for quick fix. (6)
10. The roots of all scientific knowledge is enquiry. (3)
11. Darwin lost direction but won a thousand in the end for his audacity.... (6)
12. .... and doubled it around the origin to become an eccentric. (4)
14. Combines military intelligence with mark (Spanish). (5)
15. North Carolina's premiers take steam ship east at first before getting propped up by ecstasies in spirit. (7)
17. Painted lady appeared inside to overthink education. (5)
19. Series finale is in home game. (5)
22. West End alphas come back to get viper all excited to see show before it opens. (7)
25. Can Thorium overdose result in Calcium Phosphate shell? (5)
26. Lab worker gets DNA strand unwound by Hydrogen injection. (4)
28. Immaculate conception from a game without direction ending in charge. (6)
29. Thin ice drifts back to form downy coating. (3)
31. Students make it to lecture, but only just we hear! (6)
32. The initially one day international massively open online course was held in huts controversially, being divided into two parts! (11)

Down

2. Makes connection inside pharmaceutical ink agency research team. (7)
3. Remote radio equipment found by topless and bottomless Ibizan was strange! (7)
4. Cytoskeletal structures revealed in strange ox seamen. (8)
5. Stretch stipend in east Kenya? (3)
6. It makes it hard to see Manchester University getting the Swedish money back. (4)
8. Modern student accepting welfare carelessly leads to taking leave, it is acknowledged. (7)
9. Dance cosy lap-dance? (7)
13. Lookalikes in Georgian mini. (6)
16. Sheffield Hallam academic develops original wisdom at the outset to follow a fellow researcher around the lab. (6)
18. Do short operations involving two students to uncover lumps. (7)
20. 'My award!' we hear from travelling researcher. (7)
21. Finding chips at the gym upset researcher's rhythm. (8)
23. Five join Melody at Nottingham Trent for a change. (7)
24. God worn ragged? That'll lead to sin! (7)
27. Doctor brought East and West together and developed a complete picture. (4)
30. Join researcher with attention deficit hyperactivity disorder? No so fast! (3)

*Please complete if you are submitting your entry

Name: .....

Department: .....

Return entries to GRC, Dainton Building, Brook Hill

Got the print version?

Want the pdf?
Link here