

ARCOM

ASSOCIATION OF RESEARCHERS IN **CONSTRUCTION MANAGEMENT**

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*Adaptation to Climate Change workshop
University of the West of England, 7 June 2012*

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Adaptation to Climate Change



Under the guidance of Dr Colin Booth and Dr Jessica Lamond, the University of the West of England (UWE), supported by Construction Excellence South West (CESW), successfully hosted (07/06/2012) a workshop on Adaptation to Climate Change, as part of the ARCOM series of roadshows

on "Low Carbon and Sustainability". The event attracted ~30 delegates from a wealth of universities and from across a range of built environment subject disciplines. The all-day workshop saw the delivery of five stimulating keynote presentations, which culminated in a 'Question Time' type debate, with panellists discussing a range of leading climate change issues (see picture in the first page: (from left to right) – Dr Sue Charlesworth, Prof Keith Jones, Dr Diane Hopkins, Prof Roger Street and Mr Robert Barker).

Prof David Proverbs (Head, Dept of Construction and Property at UWE) initiated proceedings of the day, before handing over to Dr Colin Booth to oversee talks by Prof Roger Street (UKCIP University of Oxford) on "Challenges and contributions: a perspective from considering adaptation and resilience in the context of change"; Mr Robert Barker (BACA Architects Ltd.) on "Flood resilient and climate adaptive city design"; Dr Sue Charlesworth (Coventry University) on "Mitigating and adapting to climate change using sustainable drainage". After lunch, the first of the afternoon sessions proffered talks by Prof Keith Jones (University of Greenwich) on "Integrating adaptation into built asset management decision making"; and Dr Diane Hopkins (UWE) on "Adapting existing neighbourhoods for a changing climate". Specific details of these talks are detailed beneath:

Roger Street gave an excellent overview of recent projects under the research programme driven by the

cross research council partnership 'Living With Environmental Change'. Later speakers would add some detail to this overview as there were representatives of many of the projects speaking over the day. Roger also talked about the research priorities for the UK looking forward and argued for the increased need for user relevant evidence, stakeholder engagement in research and an understanding of the implications of localism.

Robert Barker showed the several ground breaking designs for new climate adaptive developments. He shared with the delegates the experience of a practising architect in seeking to make sense of existing guidance on adaptation to climate change that led to BACA Architects becoming involved in the TSB-funded "Long term Initiatives for Flood risk Environments" LIFE project and guide. Robert also spoke about the design for climate project and described a structured process for deciding on the prioritisation of adaptations for real developments with multiple stakeholders.

Sue Charlesworth gave an expert summary of the role of Sustainable Urban Drainage (SUDS) in increasing the climate resilience of the built environment through adaptation and mitigation. She introduced the SUDS rocket and showed how SUDS can be used to improve drainage, enhance the environment, assist cooling and carbon sequestration. Sue presented many real life examples of SUDS installations in the UK and elsewhere but stressed that the use of SUDS is only part of an integrated climate receptive neighbourhood.

Keith Jones brought the discussion back to the adaptation and operation of existing buildings in the full knowledge that most of the buildings we will occupy in next 100 years already exist and that, as currently operated, they significantly underperform against design. Keith described recent work for the EPSRC-funded "Community Resilience to Extreme Weather" CREW project and particularly focussed on the impact on small businesses. There were some very useful practical tips for researchers and also the importance

Editor letter....



Welcome to this issue of ARCOM Newsletter!

This issue brings a variety of contributions, which testify that CM has evolved to face the increasing challenges of modern world. Workshops on climate change adaptation and culture issues in project incorporated inputs from non-construction experts. CICE Open Day highlighted the benefits of knowledge co-production with the industry. Few others articles including the development of Best Practice clubs, the economic situation and construction are also featured for your reading pleasure. I wish to thank all contributors in this issue!!

I would welcome any comments, and am awaiting for your contributions to the newsletter. Please get in touch, by sending e-mail to R.Soetanto@lboro.ac.uk!!

Robby Soetanto

of “backcasting”, an approach where the necessary steps in adaptation are defined by working backwards from a desired vision of future adapted cities.

Diane Hopkins, the final speaker of the day, completed the picture of adaptation by describing the human attitudes and behaviours that are involved in changing neighbourhoods. The EPSRC-funded “Suburban Neighbourhoods adaption for a Changing Climate” SNACC project examined the willingness of suburban populations to adopt climate resilient design. The results showed that there is a great deal of scepticism and resistance to change displayed by populations with respect to the need to make changes in their built environment in general. Within this general picture there are also interesting differences in the attitudes to the various climate challenges with, for example, a greater sense of personal responsibility for overheating and a belief in the role of government for hazards such as flooding.

The final session of the day saw Jessica Lamond step into the shoes of David Dimbleby and play question time host to the distinguished panel of experts, who drew on their vast knowledge and experience to field many questions. These covered a range of themes including the application of their research in developing countries; uptake of water conservation measures in buildings; the role of regulation in changing behaviour; and whether it would ever be possible to have a 100% carbon neutral development. From the lively discussions in this session, and from those over breaks, lunch and at the end of the session, it appeared most delegates had gained some new ideas and were keen to push forward the climate change adaptation research agenda.

*Dr. Colin A. Booth
The University of the West of England*

ARCOM now has 14 institutional members and 255 individual members!

ARCOM Membership Secretary, Dr. Shu-Ling Lu of the University of Reading, reports:



The number of individual members is very healthy and on an upward trajectory. The geographic breakdown of the membership is shown in the chart below:

- Over 90 % of the members originate from the Europe (41%), Sub-Saharan Africa (29%) and Asia Pacific (22%).
- In Europe the majority of the members come from the UK (76%), followed by Ireland (10%).
- In Sub-Saharan Africa region, the majority of the members originate from Nigeria (62 %), followed by Ghana (16%).
- In the Asia Pacific region the membership is more equally distributed between four countries: India (23%), Sri Lanka (19%), Malaysia (14%) and Australia (12%).

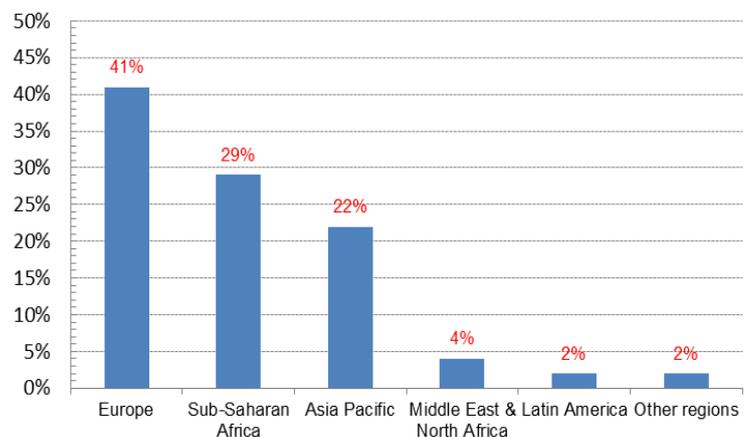
ARCOM currently has 14 institutional members:

12 institutions from the UK

- Birmingham City University
- Edinburgh Napier University
- Glasgow Caledonian University
- Leeds Metropolitan University
- Liverpool John Moores University
- Loughborough University
- Northumbria University
- University of Brighton
- University of Manchester
- University of Reading
- University of Salford
- University of Wolverhampton

2 institutions from Sweden

- Chalmers University of Technology
- Luleå University of Technology



Regional classification

ESRC Seminar Series on 'Cultural Issues in Project Organisations'

This seminar series entitled 'Cultural Issues for Project Organisations: Developing theory and practice' (www.project-culture.org) is funded by the Economic and Social Research Council, UK, and supported by ARCOM. The first seminar was held in April 2011 in Loughborough University focussing on national culture with Professor Geert Hofstede giving a keynote presentation (featured in ARCOM Newsletter volume 28 issue 2). This seminar series focuses on culture's interactions with project-based forms of organisation. It embraces and draws together culture researchers, project researchers, and practitioners in culture and projects who, up till now, have tended to operate in distinct groups. The follow-on seminars were held in the University of Leeds on 28th November 2011, and the University of Manchester on 17th May 2012. They are summarised in these two pages.

Seminar 2: 'Stakeholders Values in Projects'

- How do your own basic value priorities influence the way you make decisions in projects?
- When and should stakeholders' values in projects become concrete?
- If stakeholders value intangibles in projects and we can only measure tangibles in terms of time cost and quality, then can we measure what stakeholders' value?

These are just some of the thought provoking questions that featured in a jointly ESRC and ARCOM sponsored workshop seminar at the University of Leeds. Over thirty delegates, encompassing researchers from all stages of their career, practitioners and policy makers joined together to discuss how issues of stakeholder value interplay with delivering projects. The seminar's keynote speakers were Professor Shalom Schwarz, a world-renowned thinker in articulating value constructs (photo below), and Professor Simon Austin who talked about his work on incorporating and understanding value in construction projects. The seminar also provided the opportunity for early-career researchers, Dr. Grant Mills and Vivian Liang to



showcase their work in this area. In the afternoon the whole workshop considered provocations that came out of the presentations and contributed their ideas to the issues under debate. A feature of the day's activities was the ability for people at the start of their research career to gain valuable insights in an informal setting from world-renowned academics and from policy-makers and practitioners.

*Prof. Naomi Brookes
The University of Leeds*



Seminar 3: 'Building Cultural Alliances in Projects'

The central focus of this seminar is on project alliances and related cultural consequences. A range of speakers have been brought together to provide diverse theoretical, practical and empirical perspectives to the 'problems' of culture in forging alliances. The seminar was opened by Professor Andrew Gale (School of Mechanical, Aerospace and Civil Engineering), who together with Professor Mike Bresnen from Manchester Business School are the co-principal investigators of this ESRC Seminar Series.

Professor Sue Cartwright from Lancaster University started the seminar proceedings by tracing her research on mergers and acquisitions. She noted a few recurring problems in mergers and acquisitions, including inter alia asymmetries between managers and workers, potential demotivation of staff who stay as a result of increasing work intensity and job stress, and a sense of losing one's identity. She also suggested that mergers and acquisitions work well if superordinate goals were framed that could transcend those found within the individual organisations involved. Sue discussed the relevance of cultural dimensions (e.g. Hofstede) in understanding mergers and acquisitions. However, Sue critically argued that the tradition of evaluating and enumerating cultural dimensions has served to provide grand theories that proffer a universalistic one-culture model, thereby neglecting the 'cultural' effects at the work group level. Therefore, Sue proposed a number of directions that cultural research might take, especially in the context of inter-organisational relations. These include a sharper focus on work group level of analysis and an appreciation of a more pluralistic model of culture.

Mike Brown (pictured below), Head of Programme Management at Rolls-Royce, then followed by tracing his professional experience in negotiating across national cultures and running transnational projects. Mike's professional experience includes working for large blue-chip companies like BAE and Marconi. One of his formative experiences of working in a multi-national context was getting involved in power generation projects in Sri Lanka. He noted the different meanings attached to

'Yes' (both verbally and in terms of body language) by his Japanese and Indian colleagues. Interestingly, Mike noted that he often disbanded face-to-face meetings because communication at a group level was not getting anyway. Instead, he found personal success in moving discussions along by refocusing on 'fact-based' technical data, and conversations on an individual level. In another instance, Mike discussed the limited use of formal contracts when working in other countries such as China. He recalled an instance when his Chinese counterpart renegeed on prior contractual promises. Mike explained how this problem was solved through individual discussion with his Chinese counterpart; this discussion revealed the reasons behind why the Chinese had not abided by contractual obligations, which lay in the problem of sorting out logistics across the supply chain. Oftentimes, the notion of trust is fronted as a prerequisite for strong, effective alliances. Yet, Mike's story is less about trust (or the lack of trust between partners in transnational cooperation). Instead, Mike's stories appear to stress the importance of understanding the problems encountered by partners, with a view to find a collective solution. Mike's stories also revealed the importance of non-human relations (e.g. the enrolment of 'technical data' and various technologies) in shaping human relations.

Dr. Florence Phua, Reader in Organisational Studies at the University of Reading, followed on with a presentation on the rhetoric and reality in the corporate social responsibility debate. Florence's talk intended to open up fresh research agenda on the future of Corporate Social Responsibility (CSR) in project-based construction. Her discussion was situated in the growing prominence of CSR that espouses benefits shifting the focus from meeting the needs of shareholders to discretionary responsibility of doing good. Yet, Florence acknowledged a performance gap that is the chasm between what organisations say they would do and what they actually achieve. She explained her recent research, with Professor Martin Loosemore from University of New South Wales in Australia, on the subject, based on 9 case studies across supply chains in the construction industry. The research interrogated convergences and divergences between what companies say and what they do, and how a recurrent message that came out of the research is that companies often feel that CSR "is the right thing to do". Florence suggested that more could be done to research the reasons behind, and the dynamics of, CSR gaining acceptance and legitimacy in organisational discourses and practices. She suggested a number of possible theoretical lenses to help inform a more fine-grained analysis of the going-ons of CSR, including neo-institutional theories and isomorphism, transaction cost economics, resource-based dependency, and social network embeddedness. She also noted the importance of maintaining interpretive flexibility, and discussed the challenges of delineating

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between the observable practices in organisations and the intrinsic, non-observable values and interests of (corporate) social responsibility.

The difference between what people say they do and what they actually do is a theme that is extended in the presentation by Dr. Nick Marshall, Senior Research Fellow at the Centre for Research in Innovation Management (CENTRIM) in Brighton. His talk, entitled 'Thinking, saying and doing across boundaries of practice? Cognition, norms and performances in collaborative projects' draws on ethnographic work of a sewage plant and highways maintenance programme. By detecting differences between thinking (cognition), saying (language) and doing (activity), he revealed the complex interplay between language, beliefs, norms and identities. Nick argued against normative beliefs of cultural configuration. Nick posed a fundamental question in his presentation: what needs to be shared in the context of collaborative projects? Is it shared schema, symbolic codes, vocabulary and/or activity? Nick stressed that language games are rife in organisations, and that these promote arenas of practice; discursive formations invest discourses with power. Nick explained that practices of thinking, saying and doing are qualitatively different, and drawing on Barry Barnes' work on practice as collective action, Nick argued that there are not shared habits. Rather, individuals constantly modify their habituated responses as they interact with others. Thus, negotiations in organisations offer immense opportunities to study the convergences and divergences between thinking, saying and doing. However, Nick added a cautionary note by stressing that studying thinking, saying and doing are fraught with problems. He also concluded that coordination of social action does not necessarily require complete consistency between thinking, saying and doing. He suggested that the study of projects (and project ecology) as intersecting social worlds offers immense possibilities for future research, but warned against the dangers of researchers and practitioners trying to remove tensions in organisations. Instead, it is critical to appreciate pluralism in organisations and a deeper understanding of how power simultaneously constitutes and constrains social actions.

The final two presentations focus on discursive practices in organisations. Dr. Nick Ellis, Reader of Marketing in Durham University, presented his recent work on marketing identities and liminality in organisations. Rather than fixing identity in static states, Nick's work centres on the fluidity of identity in organisations. Through interviews undertaken with business-to-business professionals in India and the UK, Nick revealed the complex interplay between national, organisational and individual notions of identity. His study found that individuals that play a boundary spanning function, such as the case portrayed in his business-to-business professionals, are constantly in a state of liminality, i.e. in-between-ness. He found that his participants were more than capable of navigating through the nested levels of identity construc-

tions, and were rather comfortable in weaving together potentially incommensurate positions (e.g. between 'family' and 'professional' orientations). He also noted how his participants constantly shift the contours of boundaries in the reconstructions of their identity and identity work, to allow them to operate effectively both inside and outside their organisations. Nick argued for more research to investigate discursive practices and positioning in organisations, and the nature and consequences of inter-organisational managers as perpetual liminars.

The final presentation was by Professor Christine Räisänen, Chalmers University of Technology, Sweden. Her presentation was entitled 'Who informs whom? Strategic collaboration between business-school consultants and a construction firm'. Christine drew on ongoing analysis of Strategy Away Days, framed as temporary suspensions of routine structure to reflect on organisational structure. Her work builds on the ritualisation of strategy workshops, and specific interest in the connections between organisational after-life and fore-life as organisations move in the present. Her theoretical orientation also draws upon Bakhtin's work on conversational relationships over time and space, repertoires of discursive practices and genres, and positioning theory. Christine presented some empirical examples from a number of Away Days in which business-school consultants (professors) were engaged to facilitate strategic reorientations in a construction firm. She noted how physical space plays a crucial role in encouraging effective dialogue. More specifically, Christine argued that strategic discussions of this kind cannot be undertaken in an atemporal context. She stressed that the forelife and afterlife of the instantiation of a strategic episode (e.g. Away Day) influences the episode and its uptake. She suggested that both past and future are in the present and they offer opportunities and choices, but also limitations and constraints.

Collectively, the speakers have provided thought-provoking positions that serve to extend our understanding of culture in project organisations. Crucially, there is acknowledgement of the limits of the one-culture model that has propagated in organisation and management studies for a long time. Categories and typologies are certainly restrictive in telling us what really goes on in reality. Instead, the presenters offer possible, more qualitative ways of opening up an inquiry of identity and identity work in project-based organisations. The speakers have also discussed the importance of interpersonal, inter-organisational, and international perspectives. These intersections, again, render static forms of cultural dimensions and cultural values as problematic. Instead, the speakers emphasise shifting positions, shifting boundaries and shifting (cultural) identities, across time and space.

*Dr. Paul Chan
The University of Manchester*

The economic situation and construction: nightmare or dream?



Back at the beginning of June this year, Spain's banks were about to receive a major bailout. Greece was about to vote in parliamentary elections, which were expected to decide the issue of whether or not Greece remained in the Euro. Nor was Portugal out of the woods. It was suffering a major brain drain of its most talented people not to other

parts of Europe but to Brazil, denuding the small Eurozone country of many of its most able people capable of rebuilding their economy. Italy was still a basket case and France had a social system that was both burdensome and inflexible.

And nor was the UK isolated from the problems of the Eurozone. The UK depended on its exports to Europe, which remained its key trading partner. If the Euro had collapsed, then there was little doubt that the consequences would have ended up washing up on the shores of Britannia, weakening our industry as our markets overseas declined. But it was not just about falling industrial output and rising unemployment. It was also about the banking system and even the purchasing power of our money, the once mighty pound sterling, which, until well after the Second World War was a reserve currency used by other countries, because it was seen as stable and enduring.

To me the big question we did not know the answer to, was whether or not the UK banks had been able to build up their reserves sufficiently to withstand the losses on loans to countries in the Eurozone? This had been one of the reasons behind the Bank of England setting an all time absurdly low base rate at one half of one percentage points. With the base rate as low as that, the banks had had three or four years to pocket the difference between the low base rate and the rate they charge their customers, time to build up their reserves. But did they pocket the difference or trouser it?

If the answer was they had trousered it, (or wasted it in one way or another), then banks in the UK, I speculate, would have been pulled down and confidence in the pound would have gone the same way as the Euro appeared to be going. All bets would have been off. The government would have been shackled. There would now be no room to manoeuvre. Uncertainty would have destroyed any remaining investment plans, except for the most essential and unavoidable expenditure. And construction would have been hit below the Plimsoll line, as indeed it has been. The most recent UK construction output figures, according to official statistics at the time of writing, were for May 2012 and show construction output declined by 6.3 per cent compared to a year earlier.

If the answer was that the banks had pocketed the difference, (or managed to retain significant amounts of liquidity), the result would be that the banks would have had plenty of money in reserve and there might then still have been opportunities to invest and build. Sadly, since May the LIBOR

scandal (which was also a scandal involving the banks of many other countries), the mis-selling of interest rate swaps to small businesses and the attempts to tarnish the reputations of some of our banks has continued to damage the UK banking system. If the financial sector no longer commands the dizzying heights it once achieved, then the British economy may well be set to diversify back into other industries, which will benefit construction in the longer term.

Sadly, too little, too late has been going into planning a national strategy for the building industry to stimulate the economy in good time. If money and plans had been forthcoming in say 2008, then employment in construction by now could have been used to replace unemployment on the dole. Instead of getting nothing in return for unemployment benefits and having nothing to show for government expenditure, the hope might have been that built structures and infrastructure could produce a real legacy for future generations, one of the themes at this year's ARCOM Edinburgh conference.

The question now becomes what would one suggest we build? Let us dream a little and forget the economic crisis. While the government discusses the possibility of high speed (HS2) trains to Birmingham, I proposed adopting the Maglev scheme between London and Glasgow. Maglev stands for magnetic levitation transport system. The track would sit on the middle dividing strip on motorways, on the M40 to Birmingham, the M6 to Manchester, the M60 to Leeds and the A1M to Newcastle, following the A1 to Edinburgh and the M8 to Glasgow, dropping underground where necessary in the cities.

Maglev would generate employment up and down the country and the technology used would leapfrog Europe. Planning permission would not be as controversial as the HS2 and work could commence on existing publicly owned motorway land earlier than on the HS2, which requires the purchase of new land on a massive scale. Maglev is much faster, quieter and less polluting per passenger mile, with a much higher passenger capacity than high speed trains.

The cost of Maglev would be offset long term by rising property prices up and down its length and long lasting employment opportunities throughout the country as journey times would be halved. Maglev would replace much of domestic air travel, releasing slots at Heathrow, Gatwick and Stansted airports for more international flights without the need for a new fourth airport.

Over the summer, just when we thought things could not get any worse, they got worse. Much worse. We are now entering a completely new ball game. There is no room left in this ARCOM Newsletter to speculate on the effect of the latest developments in the Eurozone, worldwide financial markets and the UK economy's lacklustre growth predictions on the construction industry, save to say that without confidence and trust in the banks that organise finance for construction, we are in for a roller coaster ride, the likes of which we have not seen in our lives. We live in interesting times!!

*Dr. Stephen Gruneberg
The University of Westminster*

Centre for Innovative and Collaborative Construction Engineering's Open Day

Established in 1999, the Centre for Innovative and Collaborative Construction Engineering (CICE) at Loughborough University has an enviable track record of placing doctoral-level Research Engineers (REs) with major construction companies including Arup, Balfour Beatty, Buro Happold and Vinci. Over 50 REs have since graduated through the scheme and are now in a range of senior positions across the industry. With the aim of opening up the Centre to new sponsors and REs, over 50 guests attended the CICE's Annual Open Day on 29th May 2012.

The day opened with an introduction to the work of CICE, followed by an insightful speech from Dr. Andrew Cripps of AECOM (a member of Management Board, who has personally supervised several EngD projects in recent years), who talked about the reality of doing research in industry; he encouraged applicants to look upon the EngD journey as a combination of research, business and personal development (pictured below).



Shamir Ghumra, Head of Sustainability at Aggregate Industries (in the fourth-year of his EngD) gave an entertaining and thought-provoking overview of his project on sustainability assessment. There was plenty of time for networking so that the REs could spend time discussing their work with the high-level delegates from industry.

Dr. Chris White, Portfolio Manager for the Built Environment from EPSRC, was also in attendance and keenly judged the impressive array of posters produced by the current cohort of Research Engineers. The winner was Nick McLaren (pictured on the right, receiving his prize), whose work focuses on integrating artificial turf maintenance and sport surface science (also pictured far right is his supervisor, Dr Paul Fleming).

Reflecting on the Open Day, Professor Steve Ison, the Centre Director, believes that the CICE's continued success is due in part, to its highly-motivated REs, but also to the EPSRC's ongoing support of all Engineering Doctorate centres around the UK. He says: "We are pleased with the continued success of the Centre and our relationship with a wide range of companies with an interest in the Built Environment and we are strongly committed to this model of industry-based research."

The CICE is keen to hear from high-quality students coming to the end of their Masters programmes (not necessarily just Construction Management) who may wish to undertake Engineering Doctorates themselves. Potential applicants can consult the Centre's website, or contact Centre Staff who will be happy to explain what an EngD entails, eligibility and potential projects. CICE is the longest-established UK EngD centre for the construction industry and ARCOM Newsletter readers are welcome to get in touch to find out more about the important strategic work underway.

For information, the CICE's broad research themes are:

- Advanced Information and Communications Technologies
- Construction Business Processes
- Innovative Technologies
- Sustainability
- Transport and Infrastructure

Potential Research Engineers are invited to contact CICE Centre Manager, Dr Steven Yeomans, in the first instance (email: S.G.Yeomans@Lboro.ac.uk) or visit the website: www.lboro.ac.uk/cice



(Two photos in this page are courtesy of Nick Rawle Photography)

CICE Research Projects:

“Every little helps TESCO reduce its energy bills”

Two EngD (CICE) projects at Loughborough University, both in partnership with Tesco, are proving a great example of practical academic and commercial collaboration. The first of the four-year projects is designed to make energy savings in Tesco stores through motivating staff to participate in energy reduction programmes.



Sian Christina (left) carried out an evaluation of current energy management practice against a framework of motivational and environmental theories, leading to the development of some practical recommendations. As a result of her work, Tesco's energy team carried out a successful pilot in 35 superstores, resulting in a 3% saving in energy consumption and the new processes have now been rolled out to around 700 Superstores, Metros and Extras across the UK.



The second project, being undertaken by Maria Spyrou (right), is taking a detailed look at the energy consumption data already collated by Tesco to devise an accurate computer modelling tool for understanding and predicting best practice energy consumption for all buildings in the Tesco estate. The tool will enable Tesco to quickly identify stores where energy performance best practice is not being attained and identify a list of remedial energy saving initiatives.

“The partnership has been beneficial to both parties”, says Richard Lee, Head of Sustainability and Electrical Power; “Tesco has been at the forefront of engaging its staff with energy initiatives for some time, and the collaboration with Loughborough through CICE has helped us find an even higher level of performance. The EngD programme meets our needs perfectly, allowing the candidates to get real operational data to shape their research and our business decisions”.

With the projects already in their second year, CICE and Tesco are hoping for continued effective partnership in developing successful energy practices that contribute towards future commercial results.

“Award-winning analysis”



Loughborough's EngD Centre, CICE has a rising star among its Research Engineers. Gary Robinson was part of a winning research project for the Institution of Structural Engineers Model and Full Scale Testing Award 2011 and is a shortlisted finalist for the Institution of Structural Engineers Young Researcher of the Year 2012. But how did he do it?

Gary's research combines the use of non-standard concrete mixes, reinforcement bar layouts, analysis techniques and design methods for the manufacture of precast concrete elements and structures. This led to the successful application of a novel design approach for the precast concrete panels made by Hanson Structherm, which is sponsoring his EngD.

An alternative precast slab using lightweight and sustainable aggregate replacement materials was produced, as well as an alternative computational procedure for the robustness assessment of buildings made from precast concrete.

Technical Director of Hanson Structherm, Ben Edmondson, is delighted. He says: “Gary has worked successfully, both individually and as part of our wider R&D team, to progress a number of research and product development projects. Most of these research areas have already resulted in a direct business or cost-saving benefit.”

This is a remarkable project which is leading to high-impact product innovation in the precast concrete industry and reflects the strong relationship that CICE has developed with the construction industry.

Decision support for the selection of façades on multi-storey buildings



Helen Garmston is a first-year PhD student in the Plymouth University Environmental Building Group. Becoming a researcher in the built environment stems from an exciting career change, when in 2007 I left my previous field of product development and started a BSc in Building Surveying and the Environment at Plymouth University. I enjoyed the course, and graduated in 2010 with First Class Honours and the Royal Institution of Chartered Surveyors prize for outstanding performance. After graduating, I worked as a Research Assistant in the Environmental Building Group on three funded projects, prior to starting my PhD in October 2011. My PhD is funded by a Faculty of Arts Studentship. My PhD supervisors are Dr Wei Pan and Dr Pieter de Wilde.

My PhD research is investigating the decision-making involved in the selection of façades on multi-storey buildings, with the aim of providing beneficial decision support to the construction industry. I am still in the exploratory phase, where various research activities (literature review, interviews, and case studies) are serving to reveal the state-of-art in façade decision-making in multi-storey buildings. I have recently had a peer-reviewed paper accepted for the ARCOM 2012 Conference. This paper discusses the findings from my initial interviews with construction professionals in relation to findings from my literature review, revealing in this instance, that architects make the initial façade decisions, with clients and planners making the final decisions. Other participants, e.g. consultants, play a part in the decision-making, some active, some attempting to influence. Few decision-making tools were revealed as being used. Further exploratory research is planned to further define the roles involved in façade decision-making, plus specific building projects will be investigated to further clarify what decisions are made, and when.

The early months of my PhD have been busy in other research areas too, as I co-authored three peer-reviewed publications with Dr Pan. This included articles for two international journals: *Energy Policy* and *Energy*, and a paper for the 48th Annual International Conference of the Associated Schools of Construction. For information, please see: www.plymouth.ac.uk/staff/hmgarmston.

In addition to my research interests, I like supporting the role of women in construction. I was the Student Coordinator for Plymouth University's Women in Technology Network for the academic year 2011-2012. Plus, for two-years, I have been Events Administrator for South West Women in Construction (SWWIC), where I help organise events (networking and fund-raising), and minute our breakfast meetings and AGM.

Communities of practice: Best practice clubs



The Construction Best Practice Programme (CBPP) was formed, along with many other cross industry bodies, as a result of the Latham and Egan reports, as a means of driving the change agenda within the construction industry. The CBPP's remit was to improve industry performance to provide a better built environment and one of the means of driving change was to use small communities of practice, Construction Best practice clubs. They are a cross-sector, cross-supply chain, member led organisation operating for the good of industry and its stakeholders. Individual and organisational members pay a modest annual membership fee and gain access to seminars, exemplar case study site visits and presentations.

After existing independently for five years they came under the umbrella organisation of Constructing excellence. Constructing excellence was established to provide a unifying vehicle for a number of cross industry bodies. These included: Reading Construction Forum, Design Build Foundation, Construction Best Practice Programme, Movement for Innovation, Local Government Task Force, Rethinking Construction, Be, Construction Clients' Group

One of the enduring impacts of the CBPP was the establishment of Construction Best Practice Clubs, these are organised into 10 UK regional centres which supported approximately 40 clubs. Club membership levels are typically 70 organisations per group, mainly from consultant and contractor organisations. There has been a major drive to increase representation from supply chain organisations and clients however despite lots of initiatives these groups remain under-represented.

The clubs' central aim was to disseminate best practice across the industry, to provide a pan industry forum to learn from other members and to arrange for out of sector learning to take place. Reflecting on my involvement as chair of the Liverpool best practice club this has been really successful, approximately 10 events are organised per year, these have been case study project visits, industry debates, seminars, visits to the aerospace and manufacturing sector employers and workshops.

More recently, Best practice club events have had less of a focus on how government policy is to be implemented, possibly due to uncertainty as to the commitment by the coalition to the previous governments initiatives such as frameworks, the role of Constructing excellence in implementing change is uncertain, and there is a greater degree of industry scepticism as to the impact that some of the Egan recommendations such as demonstration projects and KPI's. They are one of the few pan industry groups that have a commitment to innovation and learning and are a fantastic network for researchers to join and access individuals and organisations who are committed to industry improvement.

*Dr. Andrew Ross
Liverpool John Moores University*

Notes from the Extraordinary General Meeting, ARCOM Committee Away Day Discussions, and Nominations to the ARCOM Committee



ARCOM Committee Secretary, Dr. Paul Chan, reports on few changes in the ARCOM Constitution:

Following the 2011 AGM and the 85th ARCOM Committee meeting, an Extraordinary General Meeting (EGM) was called on Friday 3 February 2012 to discuss and ratify revisions to the ARCOM constitution. The EGM was held at the

University of Edinburgh, and 18 members were present at this meeting. Specific amendments were made to the constitution to consider three issues. Firstly, the voting procedures were altered to include the introduction of online voting. Secondly, the election procedure was fine-tuned to consider a tie situation, i.e. if two or more nominees have the same number of votes at the bottom of the preference list, then the nominees in question will be put to a second vote by the incumbent committee. Thirdly, provision is made for exempting Executive Officers from the vote; Executive Officers will serve a normal term of two years. The amended constitution can be found on www.arcom.ac.uk.

For a number of years now, the ARCOM Committee has always set aside the February meeting to discuss more strategic issues in relation to ARCOM and its role in improving construction management research. The ARCOM Committee Away Day was held in Edinburgh on 3 February 2012. Professor Charles Egbu, current Chairperson of ARCOM, identified three key challenges for this year's Away Day, including approaches to investment of ARCOM's financial surpluses, the future of ARCOM given the uncertainties in the UK higher education sector, and raising the quality of ARCOM papers. The main discussion and outcomes are summarised below:

1. Investment of ARCOM's financial surpluses
 - a. The discussion centred on ideas around how best to invest ARCOM's financial surpluses. However, there was also concern over not over-stretching ARCOM's commitments. Given this backdrop, the group also debated on whether ARCOM should diversify activities further, or focus future investment on existing activities. The group also acknowledged the creation of the ARCOM Travel Grants (this is now live; see www.arcom.ac.uk).
 - b. Outcomes of discussion include: It was decided that it is important for the ARCOM community not to be insular and that engagement with scholars researching the construction industry from outside the field of construction management was crucial. A working group has been set up to develop the ARCOM Seminar, intended to inject fresh research agenda for the construction management research community, and engage with external scholars. An update will be given in due course.
2. Future of ARCOM given uncertainties in the sector
 - a. A discussion developed as to whether ARCOM would/should exist in the next five years. The group identified a number of challenges and opportunities. Challenges

include construction management being out of favour with the UK's Research Councils, the Research Excellent Framework and dominance of Russell Group institutions, fees and student numbers, CM journals not high impact, dissipated focus, National Student Survey, professionals, zero carbon, staff recruitment, BIM, hard to soft, cooperation or competition. Opportunities include defining the discipline and organising out knowledge, dialogue with power, loud and clear voice for the community.

- b. A discussion developed around defining and redefining the discipline of construction management. Professor Will Hughes reported that he was recently appointed by Routledge to edit a book set on Critical Concepts in Construction Management, a four-volume set (1,600 – 1,800 pages) representing the crucial literature representing topics in construction management – this also prompted him to review the aims and scope of Construction Management and Economics. The group agreed that ARCOM needed to increase the exposure of the community to the external world (e.g. industry, research councils, government). Ideas were discussed as to how this can be usefully done within existing activities of ARCOM, including introduction of a special track at the conference to deal with a contemporary issue, invitation of appropriate academic keynote speakers, and the mentorship scheme to connect a construction management researcher with a relevant scholar from outside the field of construction management.
3. Quality of research papers
 - a. The group discussed the issue of quality of papers submitted to the ARCOM Conference. The group concluded that quality was variable, but improving. The groups also discussed authorship of papers and noted that some Ph.D. students were submitting papers with either little input from supervisors or without the knowledge of supervisors. It was agreed that the role of ARCOM is not to police supervision matters, but to concentrate on the quality of the review process. The group identified the problem of consistency of the review process, especially in terms of differentiating between strong and weak articles. The group suggested that more consistent guidance to reviewers is needed. The group also suggested that the rejection rate (by the Chair) can be variable, and that a higher rejection rate might be a good thing for raising quality.
 - b. A number of actions arose from the open discussion, including the need for 'Training the Reviewers'. It was decided that the reviewers' comments of each paper will not only be made available to the authors, but also the reviewers involved. There was also a suggestion to move towards double-blind reviewing and that the 10-page limit needed to be made more visible in the guidance to authors (and model paper template). Guidance on writing papers for the ARCOM Conference has since been updated by Professor Will Hughes.

28th Annual Conference in the University of Edinburgh, Scotland Mon 3rd – Wed 5th September 2012



Highlights of the conference

- The venue is Our Dynamic Earth situated alongside Holyrood Palace and the Scottish Parliament, and next to the historic Queen's Park and Arthur's Seat.
- Keynote Speakers are confirmed as Prof. Janet Drucker (Westminster Business School and Professor Emeritus, Canterbury Christ Church University); and Don Ward (Chief Executive of Constructing Excellence).
- Debate Speakers are confirmed as Prof. Alyson Pollack (Queen Mary University of London); Jo Twine (Perducta Project & Programme Management); and Gordon Banks MP (former Shadow Minister for Business, Innovation and Skills).
- The 2012 Langford Lecture (set up in 2011 in memory of Professor David Langford, former Honorary President of ARCOM) is this year to be delivered by Aletha Holborough (Westminster Business School).
- 134 Papers have been accepted for inclusion in the proceedings and for presentation over the three days. Authors come from nearly 20 different countries.
- Papers have been reviewed by a sixty-seven strong Scientific Committee (including the 20 members of the ARCOM Committee) coming from eight countries.
- At least seven Paper Prizes will be awarded, each attracting a monetary prize of £250.
- The Conference Dinner will be in the Playfair Library, which was designed in the 18th Century by Robert Adam and built in the early 19th Century by William Playfair.

For enquiries and information please contact:

Conference Organiser: Dr Simon Smith, School of Engineering, University of Edinburgh, Edinburgh, EH9 3JL. +44 131 650 7159 or simon.smith@ed.ac.uk

Conference Secretary: Dominic Ahiaga-Dagbui, School of Engineering, University of Edinburgh, Edinburgh, EH9 3JL. d.ahiaga-dagbui@ed.ac.uk

ARCOM Committee 2011-2012

Prof Charles Egbu (Chairman)

c.o.egbu@salford.ac.uk

Dr Simon Smith (Vice-chairman)

simon.smith@ed.ac.uk

Prof Andrew Dainty (Immediate Past Chairman)

a.r.j.dainty@lboro.ac.uk

Dr Chris Harty (Treasurer)

c.f.harty@reading.ac.uk

Dr Paul Chan (Secretary)

paul.chan@manchester.ac.uk

Dr Shu-Ling Lu (Membership Secretary)

s.lu@reading.ac.uk

Prof Chris Gorse (CIOB Liaison Officer)

c.gorse@leedsmet.ac.uk

Dr Stephen Gruneberg (Director of International Liaison)

s.gruneberg@westminster.ac.uk

Dr Robby Soetanto (Newsletter Editor)

R.Soetanto@lboro.ac.uk

Prof Paul Stephenson (Workshop Convenor)

p.stephenson@shu.ac.uk

Prof Will Hughes (ARCOM CM Abstracts and ARCOM webmaster)

w.p.hughes@reading.ac.uk

Prof David Boyd

david.boyd@bcu.ac.uk

Dr Rod Gameson

r.gameson@salford.ac.uk

Mr Noel Painting

n.j.painting@brighton.ac.uk

Prof David Proverbs

David.Proverbs@uwe.ac.uk

Dr Milan Radosavljevic

m.radosavljevic@reading.ac.uk

Dr Ani Raidén

ani.raiden@ntu.ac.uk

Dr Andy Ross

a.d.ross@ljmu.ac.uk

Dr Chika Udeaja

chika.udeaja@northumbria.ac.uk

